

*Preliminary  
Bulletin  
of  
Delta College  
for  
1961 — 1962*

*May 1, 1961*





# DELTA COLLEGE

425 SO. WARREN  
SAGINAW, MICHIGAN

To the Prospective Student:

Every student at Delta College belongs to three communities. The first is the specific school in which he is enrolled, and at Delta there are three: the College of Community Service, the School of Nursing, and the College of Letters.

Delta is planned on an assumption of future growth. Each one of the three schools will become larger, and new schools will be added. As growth occurs, however, each student should continue to find himself in an academic group small enough that he knows his fellow students, establishes friendship with his teachers, and is personally involved in the pursuit of common objectives. Whatever size Delta College may achieve in years to come, each student will be a member of an academic unit that preserves and guarantees to him small-college attention and experience.

The second community is the wider one of Delta College itself. The cultural life, the social activities, and the recreation and governmental affairs of Delta are organized on a college-wide basis. All of the great facilities of the institution including the library, the television programs, the art and music enterprises, the appearance of visiting specialists and authorities—all are part of the life of the student at Delta.



The third community is the wider one of a metropolitan area joined together to form a living organism of 350,000 individuals. The campus of Delta College is, in reality, the three counties of Saginaw, Midland, and Bay. Within this area will be found remarkable resources of specialized talent that will be brought together to serve the student. By the same token, the resources of the institution will be available to the industry, the various units of government, the community enterprises, the social service, and the cultural agencies of the tri-county area.

Located near the center of the triangle formed by the three major cities, Delta College is prepared to be a focus that not only concentrates the finest aspirations of this area, but also serves as a unifying influence among its people.

Faithfully yours,

*Samuel D. Marble*

SDM gak



The third community is the wider one of a metropolitan area joined together to form a living organism of 350,000 individuals. The campus of Delta College is, in reality, the three counties of Saginaw, Midland, and Bay. Within this area will be found remarkable resources of specialized talent that will be brought together to serve the student. By the same token, the resources of the institution will be available to the industry, the various units of government, the community enterprises, the social service, and the cultural agencies of the tri-county area.

Located near the center of the triangle formed by the three major cities, Delta College is prepared to be a focus that not only concentrates the finest aspirations of this area, but also serves as a unifying influence among its people.

Faithfully yours,

Samuel D. Webb

SDB:gal

## CONTENTS

	Page
Educational Objectives of Delta College . . . . .	1
Origin, History, and General Purpose of Delta College . .	3
Location and Environment . . . . .	4
Accreditation . . . . .	6
The Trimester Plan . . . . .	7
Work-Study Plan . . . . .	8
Delta College Calendar, 1961-62 . . . . .	9
Organization . . . . .	10
Admissions . . . . .	20
Financial Information . . . . .	24
General Information and Regulations . . . . .	29
Student Affairs . . . . .	37
Course Offerings for the College of Letters . . . . .	41
Course Offerings for the School of Nursing . . . . .	61
Course Offerings for the College of Community Service . .	65
Directories . . . . .	112



# CONTENTS

Page	
1	Educational Objectives of Delta College . . . . .
3	Origin, History, and General Purpose of Delta College . . . . .
4	Location and Environment . . . . .
6	Accreditation . . . . .
7	The Trimester Plan . . . . .
8	Work-Study Plan . . . . .
9	Delta College Calendar, 1961-62 . . . . .
10	Organization . . . . .
20	Admissions . . . . .
24	Financial Information . . . . .
29	General Information and Regulations . . . . .
37	Student Affairs . . . . .
41	Course Offerings for the College of Letters . . . . .
61	Course Offerings for the School of Nursing . . . . .
65	Course Offerings for the College of Community Service . . . . .
112	Directories . . . . .



## EDUCATIONAL OBJECTIVES OF DELTA COLLEGE

The Imparting of Knowledge. The most obvious and long-established function of any institution of higher learning is communicating to its students in such a way as to give them permanent command of it, the knowledge which makes up our common cultural heritage and the specialized sectors of knowledge that may apply to their individual interests and professional objectives.

The Discovery of New Knowledge. A faculty member can continue to be a fresh and stimulating teacher only if he is also probing the frontiers of knowledge. In more comprehensive terms, any institution of higher learning must be in the forefront of the opening up of new vistas; the pursuit of knowledge for its own sake is the life-blood of the intellectual life.

The Application of Knowledge. In order to discharge its whole responsibility to society, the modern college or university must also translate new knowledge into terms that have meaning for the world of action, and bring this new material to bear on the practical affairs of men. It is a false conception to think of the college or university as an ivory tower withdrawn from the affairs of men, or as a stratospheric world of pure intellect unconcerned with the workaday world.

The Integration of Knowledge. The more the scope and complexity of knowledge increases, the more it becomes evident that there are no water-tight compartments in what we know, in what causes bring about what results, or in how we react to our environment. Therefore there is increasing attention to the relationships between fields of knowledge and to their interaction.

The Development of the Student as a Total Human Being. The primary obligation of an educational institution is to communicate to the student a firm command of some related fields of knowledge, and to develop in him the intellectual ability to utilize his knowledge effectively. However, any member of the complex society of today must have personal qualities and values that go beyond such a concept. In former days, the churches and the family gave the necessary personal development through their influence and discipline. With the increasing secularization of our society, and the relaxing of the close-knit character of the family as a unit, the educational institutions are being more and more called on to develop those elements of character and those values which are necessary in a civilized man to give him control and direction of his course in life.

The Relating of the Student to His Environment. Leaderships based on independence of thought and belief are vital to our future. There is an urgency to develop qualities that transcend "togetherness" and a common denominator, that express themselves in the drive for individual excellence and unique characteristics. Even a fully developed individual, however, must always act within the context of the group, and react to the forces of the group. It is a part of the educational responsibilities of our institutions to give attention to this balance of individuality and cooperation.



ORIGIN, HISTORY, AND GENERAL PURPOSE OF DELTA COLLEGE

Delta will open after six years of planning and study. The College was proposed in 1955 when initial meetings were held with representatives of the three counties. Legislation was submitted to the State of Michigan in 1957, and in the same year Bay, Saginaw, and Midland Counties voted themselves into an administrative district for the purpose of financing, building, and operating a new institution of higher learning.

The three counties have a census in excess of 349,000 people and represent one of the rapidly growing sections of the State. It is generally believed to be the largest population concentration in the nation without a degree-granting institution. Legislation affecting the further development of the College is now under consideration.

When Delta College opens in September, 1961, Bay City Junior College will close after forty years of effective service to the area. Although Delta College is a new and independent institution, it will maintain without interruption the educational opportunities that previously have been available. The faculty of Bay City Junior College will be absorbed by Delta and facsimile copies of Bay City Junior College records will be maintained at the new institution.

Because the College is locally financed, special consideration is given to students whose legal residence is in the tri-county area. Tuition charged for these students is half that charged for others living outside the tri-county area.

### LOCATION AND ENVIRONMENT

The campus is located approximately in the center of the triangle formed by Bay City, Midland, and Saginaw, but somewhat nearer to Bay City than the other two cities. It consists of a tract of one square mile, 640 acres, and is bounded by Mackinaw, Cass, Four Mile, and Kuch Roads. The buildings are situated in the center of this section.

All the activities of Delta College will, for the present, be housed in one building, constructed around a landscaped center court one acre in area. The main portions of the building, including the Library, the Commons, and two Student Concourses, will look onto the Court through glass partitions. Other areas in the central building and in five wings will accommodate faculty and administrative offices, classrooms, a gymnasium seating 2200, a small auditorium seating 266, a book store, and a technical area including educational television studios and master control rooms, language and audio-visual laboratories, a computer center, and other technological aids.

When the College opens, there will be no dormitories or faculty housing on the campus. There will be parking areas to accommodate 1400 cars.

Library. The Library of Delta College is planned as the central study area and will operate as an integral part of the educational program. Books, magazines, newspapers, and other types of library material will be available for student and faculty use. Both materials and professional staff will be available on a generous schedule of open hours.



Acquisition of materials, and planning for the operation of Delta College Library started two years before the first class session was expected to begin. The standards of the Association of College and Research Libraries, a section of the American Library Association, will be met from the start of operations. This fact means that the Delta College Library will begin at the point which some other institutions have as their library goal.

Bookstore. Delta College will have a well-equipped Bookstore in operation in September, 1961, when students are received for the first time. The Bookstore will be adjacent to the Commons, will provide a complete stock of textbooks and reference books, necessary school supplies, and a variety of other items which are related to the basic educational aims and activities of the College.

ACCREDITATION

When in full operation, Delta College will be a candidate for recognition by the North Central Association of Colleges and Secondary Schools. In the meantime, the College has developed suitable transfer arrangements with institutions in the State of Michigan such as the University of Michigan, Michigan State University, and Wayne State University. These institutions, and others, have given assurance of the acceptability of credits earned at Delta.

An inspection for preliminary accreditation will be made during the fall of 1961 by the Michigan Commission on College Accreditation.

. . .

The legal basis of Delta College was established under Act 182 of the Public Acts of 1957.



### THE TRIMESTER PLAN

The Trimester Plan has been adopted by the Delta College Board of Trustees as a means of developing year-round operation. Each trimester will be composed of fifteen weeks, and will cover a full semester's work.

The two-year academic program offered by Delta College can be completed in one and one-third calendar years. Specifically, a freshman entering in September of one year can complete four trimesters by the end of December in the next calendar year; by entering in January can finish two academic years by April of the following year; and by entering in April can finish two academic years by August of the following year. However, students will not be required to follow so concentrated a program, and course offerings will be arranged to meet varying trimester attendance patterns.

An eight-week summer session, running concurrently with the summer trimester, is under development for the summer of 1962. Selected courses from the full range of Delta programs will be offered as justified by student enrollment.

WORK-STUDY PLAN

Cooperative education involves an arrangement with an employer which permits the student to work and attend college on one of two patterns: The first consists of alternating a semester of full-time work with a semester of full-time study. The second is an arrangement which permits the student to carry part-time work simultaneously with a part-time program of study. In either case, the employment is chosen for its educational value, and an effort is made to relate experience to study. The cooperative program in the School of Nursing is an excellent example of this combination, and a limited program with the Dow-Corning Company, of Midland, is now in operation. All opportunities for additional programs will be explored.



DELTA COLLEGE CALENDAR, 1961-1962

August 30, 31, September 1, 1961	-	Registration
September 5	-	Classes Convene (Fall Trimester)
November 23	-	Thanksgiving Vacation
December 19	-	Fall Trimester Ends
December 20 through January 1, 1962-		Christmas Vacation
January 2, 1962	-	Classes Convene (Winter Trimester)
April 14	-	Winter Trimester Ends
April 15 through April 22	-	Spring Vacation
April 23	-	Classes Convene (Summer Trimester)
May 30	-	Memorial Day (No Classes)
July 4	-	Independence Day (No Classes)
August 7	-	Summer Trimester Ends
August 8 through September 3	-	Summer Vacation
September 4	-	Classes Convene (Fall Trimester)

8-Week Summer Session

June 15, 1962	-	Registration
June 18	-	Classes Convene
July 4	-	Independence Day (No Classes)
August 11	-	Summer Session Ends

## ORGANIZATION

### The College of Letters.

Philosophy and Objectives. Learning is something no one can do for the student; it is a personal activity which he must do for and by himself. The function of the educational institution is to create the situations that facilitate learning, furnish the guidance and experience through the faculty to keep learning in focus and moving toward an objective, and offer the stimulation and associations that lead toward a mature intellect and personality.

The rapidity of technological advance and the complexity of operation in the business and professional worlds are making the training of all students for specific and immediate objectives inadequate. On the other hand, there is a common body of knowledge and a common battery of skills which are required for every educated American, be he artist or engineer. This common body of experience is usually called "the liberal arts." As knowledge, it includes the history, thought, and arts of Western Civilization; as skills, it embraces, among others, the ability to deal with abstract ideas and problems, and the ability to deal with people, to communicate with them and cooperate with them. It is intensely practical in that it relates science and technology to the rest of human existence.

Professional schools of all types are insisting more and more on the desirability of the broad and flexible base offered by a liberal arts undergraduate program rather than narrow preparation for some specific operation. This demand will be met through broad courses taken in common by all students in the College of Letters.

The preparation in specific subject matters, which is prerequisite for later specialization or professional training, will be combined with the basic liberal arts approach through a series of elective courses which can be arranged in the most appropriate pattern to round out the student's needs and interests during the first two years of his college course.

Methodology. The College of Letters will combine the work usually identified as of the class-room and the curriculum with an interest in the general development of the student. This attention to the individual will be considered as an element of a total educational experience, not just lip-service to an ideal or "extra-curricular activities."

In so doing, emphasis will be given to motivating the student to do work of a self-directed nature, with special attention to helping him to develop the necessary study and organizational skills. On this base, every effort will be made to induce each student to work to his full capacity as an individual, with accelerated courses, personal projects, etc.

In the organization of instruction, every use will be made of those technological aids to teaching which free the professor from routine operations in order that more time and attention can be given directly to the student. Television, language and other types of audio-visual laboratories, programs of self-instruction through machines and other devices, and other technological means will be utilized, with the



objective of personalizing the contacts of the individual student with the teacher thus freed from routine exercises.

Types of Curricula. The program of liberal arts-centered study, supplemented by the appropriate specialized subject matter courses, will prepare the student for major concentrations and professional objectives in all principal fields.

Major Concentrations:	Literature
	Languages
	History
	Economics
	Political Science
	Business Administration, etc.

Professional Objectives:	Law
	Medicine
	Engineering
	Education, etc.

Transfer requirements to the various courses offered in the junior and senior years by other institutions of the State of Michigan have been worked out, and each entering student should consult with his advisor to decide upon the specific pattern of selection that is best adapted to his future objectives.

School of Nursing.

Philosophy: The School of Nursing contributes to the improvement of society and to the preparation of competent professional nurses. As an integral part of Delta College, the School of Nursing strives toward the College's objectives and ideals of excellence in teaching, advancement and discovery of knowledge, and positive contribution to the general welfare of society and its institutions. It recognizes that professional education is education for professional service, and thus accepts its particular functions of preparing nurses capable of making their distinctive contributions to the health services as one group of workers in the health profession.

The School of Nursing believes that the professional nurse is one who is able to give not only comprehensive nursing care, but must also develop the ability to function effectively with other members of the health team. The student must accept responsibility for contributing to the improvement of society and to further nursing research. He or she must develop the ability to be self-directing, to identify problems, and to work toward achieving satisfactory solutions.

The School of Nursing believes that the foundation courses in the humanities, the social sciences, and the natural sciences, are an integral part of the curriculum, that contribute to the student's depth and breadth of understanding.

The School of Nursing believes that there must be recognition of the individual student's level of development and needs in order that there may be the selection of learning experiences necessary for optimum personal and professional growth.

Objectives: The objectives of the School of Nursing are to assist the student to :

1. Develop the knowledge, skills, attitudes, and appreciation necessary for the nurse's role in the comprehensive care of the patient, the community's health, and the leadership skills as a member of the health team.
2. Understand the common phenomenon of one's physical environment to apply habits of scientific thought to personal, professional, and civic problems, to appreciate the implications of scientific discoveries for human welfare, and to apply scientific principles to the promotion of health.
3. Acquire and use the skills and habits involved in critical and constructive thinking.
4. Develop the tools of communication so they may be used effectively in interpersonal relations.
5. Participate actively as an informed and responsible member of the nursing profession involving professional problems.
6. Develop as a responsible and creative citizen of the community.



The College of Community Service.

Philosophy and Objectives. The College of Community Service is a two-year college which has a multiple purpose. First, it will serve students who wish to take courses that lead to technical, trade, or semi-professional proficiency. Second, opportunities will be made available for high school graduates who need remedial study prior to enrolling in degree-type programs. Third, it will offer a limited number of specific transfer curricula for students preparing to complete specialized degree courses in other institutions. Its organization of curricula and its methodology are designed to meet personal and professional objectives alternative and complementary to those served by the College of Letters.

To make possible the implementation of these purposes, the instruction in the College of Community Service will be organized in three areas:

1. The area of improvement studies for students whose preparation, either in level of achievement or subject coverage, has not fully prepared them for college level work. Students who are enrolled in this area may transfer to either of the other two areas when they are sufficiently improved to proceed to more advanced study.
2. The technical area for students who plan to complete their formal education in one or two years, and who are primarily interested in a vocational objective.
3. The academic area for students who are interested in professional and general educational objectives leading to a degree, and for whom the organization of curricula and the methods of program implementation of the College of Community Service are especially appropriate.

Types of Curricula. The following areas are suggestive of the type of study that will be available in this College:

Architectural Assistance

Accountancy

Engineering Assistance

Office Management

Secretarial Assistance

Traffic Management

Medical Office Work

Retail Management

#### Division of Continuing Education

Philosophy and Objectives. The Division of Continuing Education of Delta College is designed to provide varied and continued educational opportunities of all types for adult residents of the Delta Service area. Credit and non-credit, formal and informal, continuing and adult education programs will be offered, both on campus and in cooperation with community schools and other interested organizations in the Delta area.

Interested adults may achieve a considerable variety and scope of objectives through attendance at Delta Evening College. A complete program of testing, counseling, and guidance functions will assist the evening student in the planning of study programs and the selection of courses.



Courses offered in the day programs will be available in the evening as called for, together with a variety of special classes not offered on the day schedule. The adult evening student may therefore complete the first two years of college credit work in most of the curricula offered to full-time students during the day. Through cooperative agreements with neighboring institutions, continued work at the third and fourth year college levels and in graduate school courses will also be available.

The Division of Continuing Education will also offer, or cooperate in offering in the College district, a large, versatile, and flexible program of adult education programs, activities, and courses for people who are interested in studying and participating for purposes of cultural advancement and the development of individual and group interests, without reference to credit programs. A Regional Continuing and Adult Education Council assists in initiating, planning, and presenting cooperative adult education programs.

The fullest possible use of television - both closed and open circuit - is anticipated in both credit and non-credit programs as soon as the Delta television facilities become operational.

Basis for Placement in College and Curriculum.

While it is expected that the student in applying for admission will indicate the College and curriculum of his choice, it is the responsibility of the student personnel counselor to determine the proper enrollment for each individual. The counselor, in consultation with the student, will reach a decision on the basis of academic record, high school recommendations, achievement test scores, personal objectives, and all other available information.

Students in either the College of Community Service or the College of Letters may enroll in courses of the other College on the recommendation of the Counselor, and with the permission of the Dean of the College of Letters.

Students who are planning to transfer to another institution at the end of one or two years will normally be enrolled in the College of Letters, however, there are some sequences required for specific upper division majors which can be handled more effectively in the College of Community Services, and students intending to transfer to such majors will be enrolled in that College. In cases where one or two individual courses given only in the other College are required for a transfer curriculum, cross registration will be arranged.

Note: In many cases, individual courses or sets of courses in the Community Services, which are not primarily intended for transfer, may be acceptable to certain other colleges. This possibility should be investigated before final registration in cases where it is applicable.

Transfer between the College of Letters and the College of Community Service.

Transfer from the College of Community Service to the College of Letters will be arranged on an individual basis, on the recommendation of the Counselor and with the permission of the Dean of the College of Letters. The following provisions will normally apply:

1. The student must have a general average of 2.5.
2. Not more than 30 credits will be transferable.
3. No course will receive transfer with a grade lower than 2.0.
4. No course numbered below 150 will receive transfer credits.

When the performance of a student in the College of Letters shows that he will probably not have a successful educational experience in that College, he can transfer to the College of Community Service, on the recommendation of the Counselor and with the permission of the Dean of the College of Community Service. The credits to be transferred will be determined on an individual basis.



## ADMISSIONS

=====

Correspondence regarding admissions should be addressed to the Director of Admissions, Delta College, 425 South Warren St., Saginaw, Michigan.

### Admission Requirements for the College of Community Service:

1. The applicant must be a graduate of a recognized high school.
2. Beginning September 1962 the applicant will be required to present the same high school credits as those expected for the College of Letters.  
If the applicant does not bring such a record he will be required to make up deficiencies in the improvement division of the College of Community Service.
3. Applicants not planning to transfer will be admitted to curricula for which they qualify.

### Admission Requirements for the College of Letters:

The applicant must present a diploma from an accredited high school with satisfactory achievement in the following:

- English: Three years required at this time, but four years urged.
- Mathematics and/or Science: Two years required, but four years urged.
- History and Social Science: Two years required.
- Foreign Language: None required at this time, but at least two years urged.

The Applicant must offer the following Placement Examinations:

For the College of Letters: The Scholastic Aptitude Test (SAT) given by the College Entrance Examination Board, and a writing sample administered by the College Entrance Examination Board or locally by Delta College. (The \$4.00 fee for the Scholastic Aptitude Test will be credited against later fees payable to Delta College.)

For the College of Community Service: The Scholastic Aptitude Test is requested, but the applicant may elect the Delta College battery of tests as an alternative.

After September, 1961, all applicants for admission will be requested to take the SAT, including the writing sample. The College suggests that the applicant take these examinations no later than January. Students who wish to take the SAT for guidance purposes at the end of the Junior year of high school are encouraged to do so.

Admission Applications. Application blanks may be obtained from area high schools or from the Director of Admissions. A sheet of detailed instructions is included with the admission forms, and should be followed carefully.

The documents and materials required for application must include:

1. An application blank fully and carefully completed in ink or typewritten.
2. A \$10.00 application fee to be sent with the application. This fee is not refundable. (For specific information see Tuition Refund.)
3. A medical blank completed by a physician.

4. A high school transcript mailed directly from the high school at the applicant's request.
5. The Personal Qualification Sheet to be taken by the student to the high school principal or dean, completed by him, and sent directly to the College.



Admissions Procedures. A student is admitted to Delta College, but is asked to indicate the College and curriculum of his choice. After acceptance, each applicant will be given an individual appointment to meet with a Delta College counselor to discuss the student's abilities and goals, and to make the final decision on the College and curriculum in which he will be enrolled. The secondary school record of the applicant will be evaluated as to subjects studied, the quality of his performance, and the requirements of the curriculum requested. The recommendations of the high school principal and of the counselor will be definite factors in placement, as will evidence of his strong and weak points from the tests taken. Personal information as revealed by the application and by the health record will also be taken into consideration in planning the student's program.

Transfer Students. Transfer students are admitted to Delta College on an individual basis. All procedures applicable to the admission of new students will be followed, and after admission all requirements of Delta College must be met.

Advanced Placement. Delta College will cooperate to the fullest extent in granting advanced placement to entering Freshmen. Requests for advanced placement should be made to the Registrar, accompanied by supporting evidence from the secondary school.

## FINANCIAL INFORMATION

### Tuition and Fees.

Registration Fees. At the time an application for admission to Delta College is received it must be accompanied by a \$10.00 deposit. The \$10.00 deposit will not be refunded unless a prospective student is refused admittance by Delta College. If the student is admitted, the \$10.00 deposit represents his matriculation and entrance fee. This will not be refunded if the student later decides not to attend Delta College.

### TUITION AND FEES

	<u>Delta District Students</u>	<u>All Other Students</u>
Full-Time Tuition (12 hrs. to 16 hrs.) .....	\$100.00	\$200.00
Student Fees .....	10.00	10.00
Matriculation Fee .....	10.00	10.00
(Not applicable to Bay City Junior College Students.)		
Part-Time Tuition, Overload Hours (over 16 hrs. Trimester)		
Evening School Tuition - Per Credit Hour .....	10.00	20.00
Audit - $\frac{1}{2}$ P.T. ....	5.00	10.00
Credit by examination - Per Credit Hour .....	7.50	15.00
If Previously audited at Delta .....	5.00	10.00
Late Registration .....	5.00	5.00
Make-up Exam, Trimester or Mid-Trimester .....	4.00	4.00
Change of Course .....	N/C	N/C
Transcripts = 1st .....	N/C	N/C
All other .....	1.00	1.00
Course Fees		
Science Laboratory .....	10.00	10.00
Applied Art .....	5.00	5.00

Residence Qualifications. In order to qualify as a resident of the Delta College District for tuition purposes, a student must be a bona-fide resident of either Bay, Midland, or Saginaw Counties.

Tuition Refund Policy. After classes have begun and the full tuition has been paid, the following schedule will be used to determine trimester refunds. If a student withdraws during the:

First or second week - 75%

Third or fourth week - 50%

Fifth or sixth week - 25%

No refund will be made after the sixth week.

Summer Session refunds will be made as follows: If withdrawal occurs during the:

First Week - 75%

Second Week - 50%

Third Week - 25%

No refund will be made after third week.

Financial Assistance. There are three basic forms of financial assistance available to Delta College students--Scholarships, Educational Grants and Loan Funds. Several scholarships and educational grants are already available and more will be available before Delta College opens for classes in September, 1961. The Delta College Student Loan Fund has been set up and is being increased steadily by additional gifts. Further specific information on each of these three forms of financial aid may be secured from the Office of the Dean of Students. A brief discussion of each of these forms of financial assistance follows:

Scholarships. Delta College will grant scholarships, as the name implies, to students who have demonstrated superior academic achievement. The funds for these scholarships are made available through the generosity of interested individuals and firms. Some donors specify that the recipients must show financial need as well as evidence of superior academic achievement.



The following scholarships and loan funds have been established at Delta College. Applications should be made at the office of the Dean of Students.

The Student Emergency Loan Fund.

Started by the Arthur Hill Alumni Class of 1935 in the hope that additional contributions will be made to the fund. Sums no greater than \$25.00 are available, without interest, and repayable within one month.

The Gilbert A. Curry Memorial Fund.

Available for loans to deserving students.

The Bay City High School Reunion of 1939 Scholarship Fund.

Available for Bay County Students.

The Dr. W. G. Gamble, Jr. Fund.

This fund provides two scholarships for students who wish to enter medical technology.

The Seth Babcock Scholarship Fund.

The interest to be available for scholarship grants.

The Don E. Karn Scholarship Fund.

The interest to be available for scholarship purposes.

The Mr. & Mrs. Herbert D. Doan Endowment Fund.

The interest to be available for scholarship purposes.

The Dow Chemical Company Scholarship Fund.

A scholarship grant of \$25.00 per trimester for ten students.

The Miss Mary Elizabeth Hetherington Scholarship.

The sum of \$300.00 will be awarded to a graduate of Saginaw Senior High School definitely planning on four years of college, not a terminal course.

To be considered, a candidate must take the "College Board" Examination and the Scholarship will be awarded on a basis of character, intellectual qualities, and academic merits.

The Saginaw Valley Osteopathic Association Scholarship.

This Association has established four one-year scholarships of which three are to be given to graduates from the Tri-County Area, and one at large.

The Fred Dulmage, Sr. Fund.

The earnings from these donations will be used for the award of a plaque or a prize to an outstanding student in Engineering.

The Mr. & Mrs. James Gerity, Jr. Broadcasting Trust Agreement.

The interest to be used for scholarship purposes at the discretion of the College.

The Leonard Bergstein Loan Fund.

An initial gift in the hope that additional contributions will be made in the future. The total sum to be used for student loan purposes.

In addition to the above scholarships, funds are available on the basis of an annual grant from the donor. Inquiries should be made at the office of the Dean of Students.

Educational Grants. Some funds have been made available for students who can show financial need but may have achieved only average high school records because of unavoidable circumstances.

Loans. Delta College has applied for a loan fund made possible through the National Defense Education Act. Loans with low interest rate may be secured through this fund if it becomes available. Specific information on National Defense Act Loans will be available after June 30, 1961. The College also has a limited fund for short term loans on a thirty to sixty day basis.



### GENERAL INFORMATION AND REGULATIONS

College Success. Delta College believes that all students should show academic accomplishment if they are to remain in college. Students showing unsatisfactory progress will be placed on probation. If the record continues to be unsatisfactory, the student will be asked to withdraw from college.

While the faculty will assist the student in every way possible by individual help and counseling, the student must take the responsibility for his ultimate success. Absences from class and too heavy work programs inevitably lower academic accomplishment.

The College program is being planned to occupy fully the student's time. The student must face realistically his own abilities and limitations, and arrange his total schedule accordingly. If it is necessary for him to work more than ten or twelve hours weekly in addition to carrying a college program, he should reduce his academic load proportionately.

Normal Class Load. No student may elect more than 17 hours (not including physical education) without special permission from the Dean or Director of the College, School, or Division in which he is enrolled. Such permission will require the concurrence of the Counseling Office and the student's faculty adviser.

As a prerequisite for such permission, the student must have earned a grade point average of 2.5 or better during the previous college trimester or during the last period in high school, whichever was more recent.

Course Numbers and Notations.

1. Courses covering similar areas in the College of Community Service and in the College of Letters are numbered differently to indicate differences in treatment.

2. All courses numbered below 100 will be in the Improvement Area. They will be given service credit, but will not be counted for a certificate of graduation from the College of Community Service nor will they be considered for honor societies, extra curricular activities, and etc.

All courses numbered in the 100 series will normally be taken by students below Sophomore standing.

All courses numbered in the 200 series will normally be taken by students with Sophomore standing.

Registration in courses not normally open to the individual student will be arranged on the recommendation of the Counselor, and with the permission of the appropriate Dean.

3. A numerical notation at the end of each course description indicates the number of class and laboratory hours, i. e., 3-2 indicates 3 hours of lecture and discussion and 2 hours of laboratory or other applied exercise.

4. Certain courses in the College of Community Service numbered in the 100 series will be offered only if registration justifies. All course offerings will be re-examined in the light of the experience of the academic year 1961-62.

5. Certain courses in the College of Community Service numbered in the 200 series will be offered for the academic year 1961-62 only to complete the programs of transfer students from the Bay City Junior College.

Grades and Grade Points.

The following grading system will be used:

- A,     Excellent
- B,     Good
- C,     Fair
- D,     Poor
- E,     Failed
- I,     Incomplete

If an Incomplete is not removed by the end of the fourth week of the semester following that in which the I was given, the grade becomes an E.

The grade point system will be as follows:

For each credit hour of A, 4 points

B, 3 points

C, 2 points

D, 1 point

E, no point

In the calculation of the overall grade point average, the number of E hours must be included, although no grade points are allowed. Grade points for physical education are not to be included in the overall average.

Class Standing. A student who has earned 24 semester hours credit will be ranked as a Sophomore. All other students will be ranked as Freshman, except those enrolled in the Improvement Area of the College of Community Service, who will be ranked as Non-Classified.



Class Attendance. The policy on attendance at class and other College exercises will be as follows:

1. Attendance will be expected at all classes. There will be no system of cuts.
2. Courtesy demands that students explain the reasons for their absences to their instructors.
3. It is the responsibility of the student to make definite arrangements for all work before going on field trips or other college-sponsored events. If proper credentials for such activities are presented and arrangements are made for the work before the event, then the absence should not be reported, but should be recorded in the instructor's records as excusable.
4. Except in cases involving field trips or school activities which involve group absences, no instructor will require statements from students concerning absences.
5. A daily record of all absences will be maintained by all instructors. For counseling purposes, absences of each student will be reported to the Office of the Registrar at mid-semester and at the end of the semester.
6. Whenever the number of absences of a student become detrimental to his progress in a class, as determined by the instructor, the student will be referred to the counseling office by the instructor.
7. If either of the following two situations occur, the student may be dropped from the class at the discretion of the instructor:
  - A. If further absences occur, or
  - B. If the student does not present to the instructor satisfactory evidence of contact with his adviser.

Academic Probation, Dismissal, and Re-admission.

1. All students will be required to achieve the following grade-point average in each trimester of attendance to remain in good standing:

First trimester	1.5
Second trimester	1.75
Third trimester	2.0
Fourth trimester	2.0

Any student who fails to meet the minimum standard of achievement for good standing in any semester will be placed on probation for the following semester, and failure to meet the minimum standard for a second time in two successive semesters will result in dismissal for academic deficiency.

2. A student who has been dismissed for academic deficiency may apply for re-admission after the lapse of one trimester. If re-admitted, he will be on probation subject to the conditions above.

3. The above regulations for academic probation and dismissal also apply to transfer students. Grade-point averages from colleges previously attended are given the same right as those earned at Delta College, and the same scale is applied for probation and dismissal.

Change of Class Registration. Students who wish to change their course elections in any way must secure permission and the proper forms from the Counseling Office. The request must then be approved and signed by the faculty adviser and instructors concerned before being returned to the Counseling Office.

1. The last date for entrance into a course will be the last day of the second week of the College trimester.

2. Courses dropped before the completion of the fourth week of the trimester will be recorded as "dropped".

3. Courses dropped after the fourth week of the trimester will be recorded as dropped, with a letter grade and the notation "no credit".

4. Courses dropped within four weeks of the end of the trimester will be recorded as "failed".

Withdrawal from College. To withdraw from college, the student must secure a withdrawal form from the Counseling Office and process it according to directions.

Re-admission after Withdrawal or Dismissal for Academic Deficiency. All applications for re-admission will be made through the Counseling Office, and will be considered only after an interview with a counselor.

Students who have been asked to withdraw because of academic deficiency will be considered for re-admission only after the lapse of one trimester from the time of their withdrawal, and must present evidence which will indicate the possibility of success at Delta College.

Make-up Exercises and Examinations. Requests for make-up exercises and examinations will be granted only by authorization from the Office of the Dean of Students.

Grade Requirements for Participation in Activities. Students must have a point average of 2.0 or better, in the preceding trimester to accept offices or major chairmanships in student activities. Participation in intercollegiate athletics requires the same academic average. A student enrolled in an improvement course is not eligible for intercollegiate athletics. Intramural athletics are open to all students.

Recognition of Superior Academic Achievement. Each trimester there will be issued a Dean's List, containing the names of all students who have a grade point average of 3.5 or better.



Graduates who are in the upper ten percent of the class will be honored at the Annual Honors Convocation.

Transcripts and Recommendation for Transfer. Students wishing transcripts for purposes of transfer must request them from the Office of the Registrar. All official transcripts are sent directly to the institutions designated by the student. The first transcript is furnished without charge. For every transcript after the first a fee of one dollar, payable in advance, will be charged.

In addition to a transcript, any student who wishes a recommendation to the receiving institution must present his application to the Registrar, who, after attaching the transcript, will forward the application to the appropriate Delta office for action. Such a recommendation from Delta will be based on the total progress of the individual and not on academic achievement alone.

Transfer to Upper Division at Delta. Should legislation be passed by the State of Michigan authorizing upper division courses on the Delta Campus the student desiring to continue into the junior year should present a transcript containing the four Foundation Courses offered by the College of Letters.

Graduation Requirements for College of Community Service.

Students who wish to graduate with an Associate Certificate from the College of Community Service technical area must complete 62 hours of credit in courses numbered above 100 with a minimum grade point average of 2.0 including the following:

1. Eight hours in the field of English and Communications.

2. One of the following:

a. Eight hours of laboratory science or a four hour laboratory science course and Mathematics to total a minimum of eight hours.

b. Eight hours in the field of the Humanities.

c. Eight hours in the field of the Social Sciences.

3. To satisfy state law, three semester hours of Political Science is required which may be included within the eight hours in the field of Social Sciences.

4. Two hours in Physical Education.

### STUDENT AFFAIRS

Office of the Dean of Students. Delta College believes that while the intellectual development of the student is of great importance, the social, spiritual, and physical aspects of the individual are an inseparable part of his development. The College will provide a climate in which this total growth is encouraged and made possible. In the Office of the Dean of Students will center all services which contribute to this total development of the student and which complement his academic program, and student affairs of all kinds will be administered through that Office.

Counseling Office. A special section of the Office of the Dean of Students will be concerned with student counseling and with testing.

Each student will be assigned to a faculty adviser who has special competence in the area of the student's interests. Professionally trained counselors will be available in the Counseling Office to give special assistance with personal, educational, and vocational problems.

In addition to entrance tests, the Counseling Office will make available interest and aptitude tests for individual students.

Orientation. An orientation program for all incoming students will provide instruction in study skills as well as general information concerning Delta College.

Honor System. Delta College does not anticipate formalizing an honor system to govern academic exercises. The College believes, however, that without personal honor the opportunity for education is wasted, and Delta students will be expected to abide at all times by a code of personal honor.



Student Health. The College will maintain a Health Center and will be equipped to provide emergency treatment and check minor health problems. A registered nurse will be on duty from 8:30 a.m. to 4:30 p.m.

Student health and accident insurance will be available at a low rate.

Student Residence. Delta College will not at present maintain dormitories and cannot assume responsibility for student housing. The Office of the Dean of Students will maintain, however, a list of rooms which are suitable for students not living with their families, but ultimate responsibility for housing must rest with the parents. Experience indicates that students should live in private homes rather than in student apartments which have no adult supervision.

Athletics. The College of Community Service will require two units of physical education of students who are not enrolled in improvement courses. The College of Letters will have no physical education requirement.

A program of intramural activities will offer opportunity for all students to participate in many types of sports and recreation. The College will have programs of intercollegiate athletics in cross country, basketball, golf, tennis, track, and swimming; other types of competition will be added as the growth of the College makes possible.

Student Government. Basic in the philosophy of Delta College is the belief that the student must share with the administration and faculty in the responsibility for his own development. An effective student government contributes to the total program of an institution, and the development of such an organization will be a primary concern of the College. Special branches, such as class organizations, or a Women's Student Association to coordinate activities for women, will be a part of the over-all plan.

Publications. A college newspaper and a yearbook will be published by the student body. A Publications Board, consisting of student and faculty representatives, will determine general policies for college publications.

Student Activities. Activities will be coordinated and approved through the Office of the Dean of Students. The program will include both social and cultural affairs. Organizations wishing to sponsor activities should apply to the Director of Student Activities.

Student Interest Groups. Delta College will encourage the formation of groups which have common interest or hobbies. Recognition of such groups as Delta College clubs may be gained by securing the proper forms from the Director of Student Activities and petitioning the Student Government for recognition. Faculty advisers with special qualifications and interests will be designated on the request of the club.

Such groups are anticipated in the areas of drama, music, art, debating, political and international affairs, departmental or professional subjects, radio, television, motion picture, photography, skiing, hunting, hiking, canoeing, nature study, archeology, etc.

Placement Services.

Part-time Employment. While the College cannot guarantee to secure part-time employment for students, every effort will be made to find suitable work for those who apply for it. Employment can also be arranged through the Work-Study Plan when it is in operation.

Students carrying full college programs should not work more than twelve hours weekly. If it is necessary for any individual to work more than this, the student will be asked to lighten his academic program.

Full-time Employment. Delta College is developing a placement service which will be of service to both students and employers.

Activity Ticket. Upon registration each student will receive an Identification Card, which will serve as his activity ticket for the trimester. This card will admit him without further payment to designated concerts, plays, athletics, and many other social and cultural events.



**COURSE OFFERINGS FOR THE**

**COLLEGE OF LETTERS**

HUMANITIES 1

111 Foundations of Western Civilization 4 hrs. credit

Prerequisite: none. The literature, art, music, philosophy, and currents of history from Graeco-Roman Civilization to the present, with special emphasis on their interrelation. Intensive study will be given to selected pieces of primary source material in each field as appropriate. Some contact with creative experience in the arts will be afforded each student. 4-0

112 Foundations of Western Civilization II 4 hrs. credit

Prerequisite: Humanities 111. Continuation of Humanities 111. 4-0

211 Foundations of American Civilization 4 hrs. credit

Prerequisites: Humanities 111 and 112. An approach to the American scene similar to that of Humanities 111 and 112. 4-0

212 Foundations of Non-Western Civilizations 4 hrs. credit

Prerequisites: Humanities 111, 112, and 211. An approach to Indian, Japanese, Arab, and African cultures, of necessity on a sampling basis, similar to that of Humanities 111, 112, and 211. 4-0

SOCIAL STUDIES 2

111 Foundations of Society 4 hrs. credit

Prerequisites: none. The principles, interrelationship, and function in social dynamics of the forces usually labeled economics, sociology, anthropology, political science, etc., with particular attention to their effect in what is usually called history. The project method, related where possible to local conditions, will be a principal means of instruction, plus intensive study of selected primary source material.

112 Foundations of Society II

4 hrs. credit

Prerequisite: Social Studies 111. Continuation of Social Studies 111.

4-0

NATURAL SCIENCES 3

111 Foundations of Science

4 hrs. credit

Prerequisite: none. The philosophy, development, rationale, and methodology of the scientific approach, demonstrated by selected illustrations showing the range and interrelationships of the various fields of science. Demonstrations and laboratory exercises will emphasize methodology and the necessary precision in verifying data rather than the acquisition of one or more specific areas of knowledge. Selected pieces of primary source material will also be given intensive study. 4-0

112 Foundations of Science

4 hrs. credit

Prerequisite: Natural Sciences 111. Continuation of Natural Sciences 111. 4-0

BIOLOGY

151 General Botany

4 hrs. credit

Prerequisites: none. Natural Sciences 111 must be taken concurrently, if not taken earlier. Lectures, discussions, field, laboratory, and library investigations into the foundations of botanical science. Includes history, philosophy, and methods of botanical science; ecology, taxonomy, anatomy, physiology, genetics, evolution, and a synoptic survey of plant phyla; emphasizes conservation, medical, and teaching aspects of botany. 4-4



161 General Zoology

4 hrs. credit

Prerequisite: none. Natural Sciences 111 must be taken concurrently, if not taken earlier. Lectures, discussions, field, laboratory, and library investigations into the foundations of zoological science. Includes history, philosophy, and methods of zoological science; ecology, taxonomy, anatomy, physiology, genetics, evolution, and a synoptic survey of the animal phyla. Emphasizes conservation, medical, and teaching applications for specialized fields of zoology. 4-4

162 Vertebrate Anatomy

6 hrs. credit

Prerequisites: General zoology, or eight hours of general biology, and Natural Sciences 111. Gross anatomy of organ-systems and microscopic anatomy of tissues stressing functional interrelationships in human body. Evolutionary and developmental aspects of representative vertebrates with detailed dissection of cat, or other appropriate vertebrates, as basis for comparison. Emphasizes medical, conservation, and teaching applications of anatomy. 3-8

163 Physiological Anatomy

4 hrs. credit

Prerequisites: High school biology, or college biology, or general zoology; and Natural Sciences 111 must be taken concurrently, if not taken earlier. Structural-functional relationships of tissues and organ-systems of the human body. Studies of gross and microscopic structures, and their chemical and physical properties with demonstrations of physiological processes occurring in living organisms. Emphasizes medical, health, and teaching applications of physiology and anatomy. 4-4

251 Microbiology

4 hrs. credit

Prerequisites: A combination of twelve hours of biology and chemistry; and Natural Sciences 112. Morphologic, taxonomic, and chemical principles underlying the living processes of micro-organisms. Includes studies of fungi, molds, bacteria, and viruses. Emphasizes medical, health, and teaching applications of laboratory technic. 2-6

261 Comparative Vertebrate Anatomy

4 hrs. credit

Prerequisite: Biology 161 completed with minimum grade of C. Evolution of the larger taxonomic groups of chordates and a comparative study of their gross morphology. Special emphasis on dissection of various chordates and their relationship. 2-6

271 Use of Natural Resources

4 hrs. credit

Prerequisite: none. Investigations of problems concerning natural resources of Michigan and the United States. Includes geological, biological, and human resources and their interrelationships in the environmental, social, and economic context. 3-2

273 Biology and Human Affairs

3 hrs. credit

Prerequisites: One course in each area of biological science, social science, and Natural Sciences 111 and 112; permission of instructor required. Studies and investigations into problems of the bio-social basis for human activities. Historical development of significant ideas and concepts, and analysis of their implications and impact upon human societies. 3-0

CHEMISTRY

151 General Chemistry

4 hrs. credit

Prerequisites: High school Chemistry and one year of high school algebra, with satisfactory placement test scores; Natural Sciences 111 must be taken concurrently. An extension of Foundations of Science I (Natural Sciences 111) for students who need more specialized training in Chemistry. Includes study of the atomic theory, the nature of the chemical bond, the periodic table, nuclear chemistry, and the kinetic theory. 3-3

152 General Chemistry and Qualitative Analysis

4 hrs. credit

Prerequisites: Chemistry 151 with a C or better; Natural Sciences 112 must be taken concurrently. A continuation of Chemistry 151. Includes the study of solutions, chemical equilibrium, redox reactions, and properties of selected chemical elements and compounds. The laboratory will emphasize semi-micro qualitative analysis procedures. 3-6

251 Organic Chemistry

4 hrs. credit

Prerequisites: Chemistry 152 with C or better. First semester of a two-semester course emphasizing mechanism and principles of organic reactions, organic nomenclature, and properties of organic compounds, both aliphatic and aromatic. 3-4



252 Organic Chemistry II

4 hrs. credit

Prerequisites: Chemistry 251 with C or better; a semester of college German is recommended, but not required. Continuation of Chemistry 251. Includes elements of organic analysis, and individual synthetic projects. 3-4

261 Biological and Physiological Chemistry

3 hrs. credit

Prerequisite: Natural Sciences 112. A study of chemical terminology, and of the physical and chemical properties of substances as they relate to the biological sciences. 3-0

ECONOMICS

251 Principles of Economics

4 hrs. credit

Prerequisite: Sophomore standing. A course in beginning economics intended primarily for students who expect to transfer to senior colleges. Characteristics of the American economy, contrasted with socialism and communism; forms of business organization and methods of financing; division of labor and exchange; real and nominal investment; the money system of the United States; the monetary function of the banking system; factors which determine the purchasing power of money; consequences of changes in the purchasing power of money. 4-0

252 Principles of Economics II

4 hrs. credit

Prerequisite: Economics 251. A continuation of Economics 251. Analysis of the national product; monetary and fiscal policy in relation to the national product; business cycles; the problems of stabilization at full employment; functions of a competitive price system in a free economy; the distribution of income; problems of workers and owners; the American economy contrasted with socialism and communism. 4-0

ENGLISH M

251 Creative Writing 3 hrs. credit

Prerequisite: Humanities 112. Through analysis of various forms of writing and frequent compositions, the student is encouraged to develop according to his own interests and abilities. 3-0

271 Dramatic Literature 3 hrs. credit

Prerequisite: Humanities 112. Designed to develop appreciation, this course is concerned with the nature, purpose, and methods of drama. Half the course is given to the reading of modern plays and half to plays of Shakespeare. 3-0

281 Modern British and American Literature 3 hrs. credit

Prerequisite: Humanities 112. A study of the trends in the literature of England and the United States since 1900 through readings from the major writers. 3-0

LANGUAGES 8

FRENCH

111 Elementary French 4 hrs. credit

Prerequisite: none. Basic grammatical construction, fundamentals of pronunciation with laboratory assignments, daily oral-aural practice, composition, reading, acquisition of French vocabulary. 4-0

112 Elementary French

4 hrs. credit

Prerequisites: Fr. 111 or one year of high school French. A continuation of Fr. 111. Oral-aural practice continues with laboratory assignments, grammar principles, accompanied by exercises and written composition. Outside reading for comprehension of easy French reading material without translation. 4-0

211 Intermediate French

4 hrs. credit

Prerequisites: Fr. 112 or two years of high school French. Review and application of essential principles of French grammar by means of oral and written exercises and composition, pronunciation through oral and aural exercises and conversation, reading of French prose, outside reading to develop ability to read rapidly at sight. As far as possible conducted in French. 4-0

212 Intermediate French

4 hrs. credit

Prerequisites: Fr. 211 or three years of high school French. A continuation of Fr. 211, with somewhat more emphasis on oral skill and conversation. 4-0

GERMAN

111 Elementary German

4 hrs. credit

Prerequisite: none. Designed to develop ability to read standard German. Emphasis on oral-aural aspects of the language by means of oral reading, aural comprehension, recordings, and use of phrases and idioms frequent in conversation. 4-0



112 Elementary German

4 hrs. credit

Prerequisite: German 111 or one year of high school German. A continuation of German 111. 4-0

221 Scientific German

4 hrs. credit

Prerequisite: German 112 or its equivalent. Selected reading in science for comprehension and translation of German scientific publication. Emphasis on specialized vocabulary and on structural patterns. 4-0

222 Scientific German

4 hrs. credit

Prerequisite: German 221. A continuation of German 221. 4-0

JAPANESE

111 Elementary Japanese

4 hrs. credit

Prerequisite: none. Basic grammatical construction, fundamentals of pronunciation with laboratory assignments, daily oral-aural practice, composition, reading, acquisition of Japanese vocabulary. 4-0

112 Elementary Japanese

4 hrs. credit

Prerequisite: Japanese 111. A continuation of Japanese 111. Oral-aural practice continued with laboratory assignments, grammar principles, accompanied by exercises and written composition. Outside reading for comprehension of easy Japanese reading material without translation. 4-0

211 Intermediate Japanese

4 hrs. credit

Prerequisite: Japanese 112. Review and application of essential principles of Japanese grammar by means of oral and written exercises and composition, pronunciation through oral and aural exercises and conversation, reading of Japanese prose, outside reading to develop ability to read rapidly at sight. As far as possible conducted in Japanese. 4-0

212 Intermediate Japanese

4 hrs. credit

Prerequisite: Japanese 211. A continuation of Japanese 211, with somewhat more emphasis on oral skill and conversation. 4-0

RUSSIAN

111 Elementary Russian

4 hrs. credit

Prerequisite: none. Basic grammatical construction, fundamentals of pronunciation with laboratory assignments, daily oral-aural practice, composition, reading, acquisition of Russian vocabulary. 4-0

112 Elementary Russian

4 hrs. credit

Prerequisite: Russian 111. A continuation of Russian 111. Continuation of oral-aural practice with laboratory assignments, grammar principles, accompanied by exercises and written composition. Outside reading for comprehension of easy Russian reading material without translation. 4-0

211 Intermediate Russian

4 hrs. credit

Prerequisite: Russian 112. Review and application of essential principles of Russian grammar by means of oral and written exercises and composition, pronunciation through oral and aural exercises and conversation, reading of Russian prose, outside reading to develop ability to read rapidly at sight. As far as possible conducted in Russian. 4-0

212 Intermediate Russian

4 hrs. credit

Prerequisite: Russian 211. A continuation of Russian 211, with somewhat more emphasis on oral skill and conversation. 4-0

SPANISH

111 Elementary Spanish

4 hrs. credit

Prerequisite: none. Grammatical constructions, accompanied by exercises and easy composition. Emphasis on pronunciation. Daily oral-aural practice with language laboratory assignments. 4-0

112 Elementary Spanish

4 hrs. credit

Prerequisites: Spanish 111 or one year of high school Spanish. A continuation of Spanish 111. 4-0

211 Intermediate Spanish

4 hrs. credit

Prerequisites: Spanish 112 or two years of high school Spanish. Reading of modern texts. Review and application of essential principles of grammar by means of oral and written exercises. Composition weekly. Conversation. Outside reading to develop ability to read rapidly at sight. 4-0

212 Intermediate Spanish

4 hrs. credit

Prerequisites: Spanish 211 or three years of high school Spanish. A continuation of Spanish 211. 4-0

GEOGRAPHY 9

151 Introductory Geography

4 hrs. credit

Prerequisites: none. An introduction to maps and the physical features of the world: Earth-Sun-Moon relationships; Earth materials; landforms; drainage; climate; natural vegetation and soil; the natural environment which is important to man and his activities. 4-0



152 World Regional Geography

4 hrs. credit

Prerequisite: none. Essential Geographical characteristics and significant problems of the major regions of the world; cultural and natural resources of the nations of the world. 4-0

255 Economic Geography

4 hrs. credit

Prerequisites: Geography 151 or 152, or consent of instructor. Geographic study of the world commodities and their regional aspects; land uses, extractive and manufacturing industries - their regional and cultural relationships; trade and communication. 4-0

256 Afro-South American Continents

4 hrs. credit

Prerequisites: Geography 151 or 152. Regional survey of the physical environment, resources, population characteristics, economic activities, contemporary problems, interregional and inter-national relationships. 4-0

GEOLOGY 10

151 Physical Geology

4 hrs. credit

Prerequisite: none. Natural Sciences 111 must be taken concurrently, if not taken earlier. A study of the materials and agents responsible for the development of topographic and structural features of the earth. Includes weathering, streams, glaciation, underground water and wind activity. Introductory study of common rocks and minerals. One field trip required. 3-2

152 Historical Geology

4 hrs. credit

Prerequisites: Geology 151 and Natural Sciences 111. A study of volcanism, diastrophism and mountain building and their relationship to earth history. Includes successive stages in development of North America as a typical continent and evolution of life. Interpretation of topographic maps and identification of invertebrate fossils. One field trip required. 3-2

271 World Mineral Resources (Non-metallic)

3 hrs. credit

Prerequisites: Geology 111 and 112, Natural Sciences 111 and 112; permission of instructor required. A study of the origin and geographic distribution of petroleum, coal, building stones, lime and cement, clay, sand and gravel, salt and gypsum, fertilizers, gem stones, and other non-metallic minerals. Occasional field trips. 3-0

272 World Mineral Resources (Metallic)

3 hrs. credit

Prerequisites: Geology 111 and 112, Natural Sciences 111 and 112; permission of instructor required. A study of the origin and geographic distribution of iron, copper, lead, zinc, aluminum, radioactive minerals, and other metallic resources. Occasional field trips. 3-0

HISTORY

251 History of the United States to 1865

3 hrs. credit

Prerequisite: none. History of the United States from its immediate European backgrounds to the end of the Civil War. Some emphasis on social history and American international relations. 3-0

252 History of the United States from 1865 to the Present 3 hrs. credit

Prerequisite: History 251. A continuation of History 251. United States history from the end of the Civil War to the present time. Some emphasis on social history and American international relations. 3-0

257 Russia Since 1900 (Same as Political Science 217) 3 hrs. credit

Prerequisites: A college course in political science or history, or permission of the instructor. A critical analysis of the political, social and economic institutions of Imperialist and Soviet Russia pertinent to an understanding of the present Soviet reality. 3-0

258 The Pacific-Indian Ocean Basin 4 hrs. credit

Prerequisites: A college course in history, or permission of the instructor. A study of the countries touching the Pacific and Indian Oceans, their relations to each other and to the United States. Presents the geography of the area as a whole, followed by more detailed study of the recent history and the economic, social, and political situations of Asia, the Near East, South America, and the United States. Develops the relations of these areas with each other. 4-0

261 Modern Europe, 1500 - 1815 4 hrs. credit

Prerequisites: A college course in history, or permission of the instructor. The political, economic, and cultural history of modern Europe; the Reformation and religious wars; colonial expansion and the rise of national states; the political, cultural, and economic revolutions of the seventeenth and nineteenth centuries, culminating in the close of the Napoleonic era. 4-0



262 Modern Europe Since 1815 4 hrs. credit

Prerequisite: History 261. A continuation of History 261. The revolutionary developments, economic, political, diplomatic, and social, of Europe from the close of the Napoleonic era to the present. 4-0

MATHEMATICS<sup>12</sup>

161 Algebra, Analytic Geometry, and Calculus 4 hrs. credit

Prerequisites:  $1\frac{1}{2}$  years of high school algebra, 1 year of plane geometry,  $\frac{1}{2}$  year of trigonometry,  $\frac{1}{2}$  year of solid geometry, and a high score on College Entrance Mathematics test. Brief review of high school algebra; forms of equation of straight line, slope, parallel and perpendicular lines; conics, including degenerate cases; limits, derivatives; maxima and minima; differentials, increments; mean value theorem, definite integrals; fundamental theorem of calculus, computation of areas, volumes of revolution, and work; simple differential equations.

162 Algebra, Analytic Geometry, and Calculus 4 hrs. credit

Prerequisite: Math 161. General equation of second degree and its reduction to standard forms of conics; rotation of axes; synthetic division and remainder theorem; trigonometric, logarithmic, and exponential functions, and their derivatives; L'Hospital's rule, simple harmonic motion, Newton's method; integration by standard forms and by partial fractions; separable differential equations.

261 Algebra, Analytic Geometry, and Calculus 4 hrs. credit

Prerequisites: Math 162. Area of surfaces of revolution, arc length, and curvature; determinants, direction cosines, space curves; partial

derivatives, total differentials, multiple integrals; cylindrical and spherical coordinates; moments and centroids; infinite series, tests for convergence; Taylor's formula, Euler's identity; surfaces, normal line, and tangent plane; hyperbolic functions. 4-0

262 Analytic Geometry and Calculus

4 hrs. credit

Prerequisites: Math. 261. Differentiation of vector functions, velocity and acceleration in polar coordinates, curvature, center of curvature, study of inequalities, convergent sequences, L'Hospital's Rule, infinite series and Taylor's formula, tests for convergence, forms of the remainder connected with Taylor's formula, improper integrals, methods of approximation, analytic geometry of three dimensions. Curves in space, the differential of a function of several variables, multiple integrals, iterated integrals in polar coordinates, cylindrical coordinates, polar coordinates, certain linear differential equations. 4-0

PHILOSOPHY<sup>13</sup>

251 Introduction to Philosophy

3 hrs. credit

Open to sophomores. Designed to acquaint the student with some of the fundamental questions that have confronted mankind and the way in which these questions have been dealt with by the most profound thinkers of the past and present. 3-0

261 Logic

4 hrs. credit

Sophomore standing or 2nd semester freshman C+ or better. Aims to develop effective thinking through the study of classical logic. Includes the methods of clear argumentation, definition, the assessment of evidence and a brief introduction to inductive logic and scientific method. 4-0

PHYSICS

251 General Physics 5 hrs. credit

Prerequisites: High school physics or its equivalent; Math 161 or its equivalent. Covers mechanics, heat, and sound. 5-3

252 General Physics II 5 hrs. credit

Prerequisites: Physics 251. A continuation of Physics 251. Covers magnetism, electricity, and light. 5-3

261 Engineering Mechanics, Statics 5 hrs. credit

Prerequisites: Physics 251 and Math 261. Math 261 may be taken as parallel course. Covers forces, components, vectors, moments, couples, methods of sections, stress in frame structures analytically and graphically, cables, friction, centroids, shear and bending moments. 5-3

262 Engineering Mechanics, Statics, and Dynamics 5 hrs. credit

Prerequisites: Same as for Physics 261. Covers forces, components, vectors, moments, couples, method of sections, stress in frame structures, cables, centroids, kinematics of particles and rigid bodies, the motions of particles and bodies, translation, rotation, plane motion, work and energy, impulse and momentum, mechanical vibrations. 5-3

POLITICAL SCIENCE

251 Comparative Government 4 hrs. credit

Prerequisite: A college course in political science or history. Deals principally with governments of Great Britain, France, Soviet Russia, and Spain, with some reference to governments of Sweden and South American countries. Emphasis on theories of democracy, fascism, communism, and socialism. 4-0



253 International Relations

4 hrs. credit

Prerequisite: A college course in political science or history.

Introduction to the study of politics among nations, designed to provide a working knowledge of concepts necessary to understanding current world affairs such as the state system, colonialism, imperialism, and regional arrangements. Includes a survey of international organizations. 4-0

257 Russia Since 1900 (Same as History 257)

3 hrs. credit

Prerequisites: A college course in political science or history, or permission of the instructor. A critical analysis of the political, social and economic institutions of Imperial and Soviet Russia pertinent to an understanding of the present Soviet reality. 3-0

PSYCHOLOGY

251 General Psychology

4 hrs. credit

Prerequisites: Open to sophomores; also to second semester freshmen with a C+ or better average. Principles underlying experience and behavior, designed to give an understanding of human behavior as affected by learning, motivation, emotion, intelligence, perception, personality, and interpersonal relationships. 4-0

256 Advanced General Psychology

3 hrs. credit

Prerequisite: Psychology 251. Designed for students who will major in psychology and those who wish to explore more fully the fundamental principles of psychological science. 3-0

262 Child Psychology 3 hrs. credit

Prerequisite: Psychology 251. Facts and generalizations concerning growth of children from conception to adolescence; deals with physical, mental, social, and emotional development. 3-0

271 Psychology of Adjustment 3 hrs. credit

Prerequisite: Psychology 251. Application of psychological principles to interpersonal behavior; study of factors in the development of constructive personal adjustment as influenced by human relations in home, school, and community. 3-0

SOCIOLOGY

251 Principles of Sociology 3 hrs. credit

Prerequisite: none. The scientific study of human relationship and social institutions. Includes evaluation of current literature as a reflection of man's culture and social activities. 3-0

252 Social Problems 3 hrs. credit

Prerequisites: Sociology 251 or Psychology 251. A study of the possible causes and solutions of social problems in a dynamic society. 3-0

COURSE OFFERINGS FOR THE

SCHOOL OF NURSING 18



101 Orientation to Nursing

1 hr. credit

Prerequisite: none. Introduction to nursing as a profession. A general survey of nursing history, past and present. Designed to help the student nurse understand the broad aspect of ethics as related to the nursing profession and to acquaint the student with the social responsibilities of a professional person. 1-0

111 Fundamentals of Nursing

3 hrs. credit

Prerequisite: none. The fundamental principles of nursing applicable to the total care of the patient as they relate to basic physical, emotional, mental and spiritual needs. Understanding the individuality of the patient is stressed throughout the course in presentation of nursing content and in guiding the student during his practice in planning and giving nursing care. 2-4

112 Fundamentals of Nursing II

3 hrs. credit

Prerequisites: Nursing 111. Continuation of Nursing 111. 2-4

211 Medical-Surgical Nursing

10 hrs. credit

Prerequisites: Nursing 111 and 112. Comprehensive nursing care of the medical-surgical patient developed by theory and practice. The patient's needs analyzed in respect to the individual, his family and his community. Plans for patient care are developed, implemented and evaluated both in classroom and clinical situations. The nursing care of the specialties - gynecology, dermatology, urology, eye, ear, nose, and throat, communicable diseases, orthopedics, operating room, and emergency rooms are integrated. Nutrition and diet therapy are integrated to help the student be cognizant of dietary needs with implications to the socio-economic and cultural patterns of the individual. Pharmacology includes

the origin, action, toxicity, preparation and administration of drugs as applicable to the clinical areas. 6-16

212 Medical-Surgical Nursing II 10 hrs. credit

Prerequisite: Nursing 211. Continuation of Nursing 211. 6-16

311 Maternal and Child Nursing I 10 hrs. credit

Prerequisite: Nursing 111 and 112. Nursing care of mother and newborn in all phases of the maternity cycle and the neonatal period, growth and development from infancy through adolescence, and care of the child who is ill. The social, psychological, and economic implications of the newborn and/or illness to the child and his family are emphasized.

Pharmacology includes origin, action, toxicity, preparation, and administration of drugs as applicable to the clinical areas. Community resources for promotion of the mother's, the infant's, and the child's welfare are utilized. 6-16

312 Maternal and Child Nursing II 10 hrs. credit

Prerequisite: Nursing 311. Continuation of Nursing 311. 6-16

411 Psychiatric Nursing 7 hrs. credit

Prerequisites: Psychology 211 and 212. Guided learning experiences in the application of principles of psychiatric nursing as provided in a hospital for the mentally ill and in allied community agencies. Interpersonal relationships explored as they influence patient care. 4-18

412 Team Leadership 5 hrs. credit

Principles of supervision and of teaching auxiliary personnel with emphasis on the supervisory aspects in the team leadership role. Relationship of team leader to the organization and all personnel emphasized. Values in the give-and-take relationship of the work situation explored and enhanced. 2-18

415 The Aging Process 4 hrs. credit

Guided learning experiences in the application of principles of psychiatric nursing to the care of aged in community agencies. Problems explored as they affect our aging population. 2-12

416 Professional Adjustments 2 hrs. credit

Emphasis placed on nursing problems from the perspective of evolving professional demands. Career selections, advanced educational program, professional opportunities and preparation are discussed. 2-0



**COURSE OFFERINGS FOR THE**

**COLLEGE OF COMMUNITY SERVICE**

IMPROVEMENT COURSES

51 Methods of Effective Study

4 hrs. service credit

Prerequisite: none. Group and individual counseling for students with problems in academic achievement, including motivation, concentration, and attitudes toward study; methods and techniques of study; and utilization of time. Also attention to the problems of everyday living. Required of all students enrolled in the improvement area.

52 Speech Correction

4 hrs. service credit

Prerequisites: permission of instructor. The purpose of this course is to provide consultation and clinical assistance for students with functional speech disorders, such as stuttering, frontal and lateral lispings, poor articulation, and pitch abnormalities. Phonetic training for the student with a foreign accent.

61 Reading

4 hrs. service credit

Prerequisite: none. A course designed to build normal or superior skills for the student who has reading deficiencies.

62 Speed Reading

4 hrs. service credit

Prerequisite: none. A course to build rapid reading ability for the student who already has normal capacity.

71 Grammar

4 hrs. service credit

Prerequisite: none. Assumes the student has no knowledge of English grammar, and builds an understanding of the structure of the language.

72 Elements of English Composition 4 hrs. service credit

Prerequisite: none. Designed for the student who needs to acquire basic skill in written expression.

81 Chemistry 4 hrs. service credit

Prerequisite: Algebra I should be taken concurrently. This course is designed to give a basic understanding of chemistry to the student with no previous course work. Material covered is approximately equivalent to one year of high school chemistry.

82 Physics 4 hrs. service credit

Prerequisites: Student should take Algebra 92 and Algebra 94 concurrently. This course is designed to give a background in physics approximately equivalent to one year of high school study.

91 Arithmetic 4 hrs. service credit

Prerequisite: none. Designed to meet the needs of students deficient in mathematics as shown by a mathematics placement test. Four fundamental operations on whole numbers, common and decimal fractions, percentage, and applied problems.

92 Algebra 4 hrs. service credit

Prerequisite: Arithmetic 91 or its equivalent, and adequate test scores. Four fundamental operations on monomials, polynomials, and fractions; linear equations; quadratic equations; systems of equations, mental multiplication and factoring; exponents and radicals.

93 Plane Geometry 4 hrs. service credit

Prerequisite: Algebra 92 or its equivalent. Angles, parallel lines, Pythagorean theorem, polygons, loci, circles, proportional line segments, similar polygons, areas.



94 Algebra II 4 hrs. service credit

Prerequisite: Algebra 92 or its equivalent; Plane Geometry 93  
advisable. Fundamental concepts of algebra including graphs, ex-  
ponents, radicals, variation, proportion and logarithms; fundamental  
concepts of trigonometry, involving solution of right and oblique triangles.

ACCOUNTING

111 Introductory Accounting 3 hrs. credit

Prerequisite: none. An introduction to accounting as first applied to a sole proprietorship. The meaning and purpose of accounting; statements; theory of debits and credits; trial balance; prepaid, unearned, and accrued items; depreciation and valuation of accounts receivable. Journalizing includes use of the general, purchase, sales, cash, and combination journals. 3-0

112 Introductory Accounting 3 hrs. credit

Prerequisite: Acct. 111. A continuation of Acct. 111. Includes the voucher system; payroll, sales, property and income taxes; partnership formation and procedures; corporation formation, records, surplus, dividends, stocks and bonds; departmental accounting; introduction to manufacturing and cost accounting. 3-0

Note: Credit will not be given for both 111 or 211 or 112 and 212.

221 Punched Card and Machine Accounting 3 hrs. credit

Prerequisite: Acct. 111 and 112 or equivalent. Punched card and posting machine techniques; accounts receivable, sales, and billing; accounts payable, purchases, and payment; inventory, payroll; and specialized procedures. Introduction to electronic processing. 2-2

222 Punched Card Systems and Procedures II 3 hrs. credit

Prerequisite: Acct. 221. Advanced principles of punched card techniques applied to business data processing with emphasis on systems and procedures and including laboratory problems. 3-0

251 Principles of Accounting

4 hrs. credit

Prerequisite: none. An introduction to accounting in which the approach is made through the corporate form of business. Methods of recording, reporting, and interpreting the financial data of the business unit are stressed. Includes the income statement and position statement; general ledger; accounts; journals, subsidiary ledgers; cash records; recording of revenues and receivables; adjusting and closing entries. 4-2

252 Principles of Accounting

4 hrs. credit

Prerequisite: Acct. 251. A continuation of Acct. 251. Deals with accounts and notes receivable; discounted notes receivable; discounted notes and bills; merchandising and manufacturing accounts; fixed assets, depreciation, and depletion; consignments and installment sales; partnership; corporate capital accounts; dividends, retained earnings; bonds; preparation and interpretation of financial statements. Included are topics often studied in intermediate courses. 4-2

253 Cost Accounting

3 hrs. credit

Prerequisite: Acct. 112 or 252. A study of the field of cost accounting; methods of handling materials, labor costs, manufacturing expenses; job order cost accounting; process cost accounting; standard cost accounting and the completion of a job order practice set. 3-0

255 Federal Tax Accounting

3 hrs. credit

Prerequisite: Acct. 112 or 252. A study of the federal income tax laws. Major emphasis upon tax laws as they relate to individuals and small business. Preparation of the individual tax return. 3-0



257 Social Security and Payroll Accounting 3 hrs. credit

Prerequisite: Acct. 111 or 251. Federal Social Security laws and State Unemployment Compensation laws as applied to business. A brief survey of other Michigan tax laws included. 3-0

259 Auditing Theory and Procedure 3 hrs. credit

Prerequisite: Acct. 112 or 252. The principles and procedures of auditing, giving attention to auditing concepts, professional ethics and responsibility, the audit program, auditing procedures, working papers, and simple audit reports. 3-0

ARCHITECTURE

105 Details 3 hrs. credit

Prerequisite: none. Elements of planning and construction of small homes. Lettering, symbols and conventions, footings, foundations, doors, windows, cornices, roofs, sections, pre-fab construction, specifications, and cost estimates. 0-6

106 Small Home Planning 3 hrs. credit

Prerequisite: Arch. 105. Development of complete plans for small home, including site, foundation, floor plans, elevations, typical sections, details, specifications, rendered perspective, and cost estimate. 0-6

155 Projections 2 hrs. credit

Prerequisite: none. Basic graphical projection as applied to plans, sections, and elevations; intersections and developments. 0-4

156 Graphics 2 hrs. credit

Prerequisite: Arch. 155. Problems in perspective, shades, and shadows. 0-4

205 Architectural Problems 3 hrs. credit

Prerequisite: Arch. 106. Landscaped, scale model from student's plans for class demonstration. Special problems and reports. 0-6

206 Commercial Problems 3 hrs. credit

Prerequisite: Arch. 205. Design of small commercial building including all working drawings, details, specifications, and rendered perspective. 0-6

ART

111 Beginning Freehand Drawing 3 hrs. credit

Prerequisite: none. A beginning course in drawing designed for all students interested in creative expression in pencil, pen and ink, and wash. Representation and composition studies by drawing simple forms in line and value. Introduction to perspective. 0-6

112 Advanced Drawing and Composition 3 hrs. credit

Prerequisite: Art 111. Designed to give further understanding of composition and to develop creative ability in drawing. The representation of form with emphasis on values and textures as well as the study of abstract composition. Problems using charcoal. 0-6

113 Art Education (Elementary) 3 hrs. credit

Prerequisite: none. Introduction to art for prospective teachers. Develops the ability to stimulate the creative interests of children in art. Acquaints the student with a variety of methods and materials adjusted to various grade levels. 0-6

114 Art Education (Secondary) 3 hrs. credit

Prerequisites: none. A continuation of Art 113. Further art experiences related more especially to upper grade teaching. Additional investigation of the theories of art education and creative growth of children. 0-6

115 Introduction to Design 3 hrs. credit

Prerequisites: none. Experimentation with the basic elements of design: line, form, space, value, texture and color. A variety of media used in both two and three dimensions, using abstract and representational approach. 0-8

116 Advanced Design 3 hrs. credit

Prerequisites: Art 115. A series of projects and experiments using the basic elements of design in a variety of media, both two and three dimensional. Special interest in the fields of commercial art: product, architectural, interior and advertising design. 0-8

117 Drawing and Painting 3 hrs. credit

Prerequisites: Art 111. Experimentation in pastels, oil, and other media. Exploring techniques, composition, and color, based on studies in still life, landscape and the figure. Recommended to students interested in art as a hobby, as well as for art majors. 0-6

121 Beginning Ceramics 3 hrs. credit

Prerequisite: none. Introductory study of ceramic clay, glazes and their application, techniques of construction, and direction on the potter's wheel. 0-6



123 Beginning Jewelry 3 hrs. credit

Prerequisite: none. Introduction to the tools, materials, and techniques of silver and of copper jewelry. Most of the emphasis put on the procedures of design, the soldering and applique of metal, and the areas of stone setting and inlay. 0-6

151 History and Appreciation 3 hrs. credit

Prerequisite: none. A general survey of Western Art from prehistoric times through the 16th century. Deals with outstanding masterpieces and representative artists of the Egyptian, Greek, Roman, Romanesque, Gothic, and Renaissance periods. The emphasis is on the architecture and sculpture of those periods. 3-0

152 Art History and Appreciation 3 hrs. credit

Prerequisite: none. A continuation of Art 151. A general survey of the History of Western Art from the Renaissance through Baroque, Neo-Classicism, Romanticism, Impressionism, Expressionism, and the various modern schools. The emphasis is on the painting of those periods. 3-0

218 Advanced Drawing and Painting 3 hrs. credit

Prerequisites: Art 117. Still life, landscape, and non-objective problems in the various techniques of water color, tempera, and oil. Recommended to students interested in art as a hobby, as well as for art majors. 0-6

222 Sculpture 3 hrs. credit

Prerequisite: none. Laboratory experiences in sculpture and sculptural forms with particular attention given to techniques of forming and building. Plus the experience of casting in such media as plaster and cement. 0-6

224 Advanced Jewelry

3 hrs. credit

Prerequisite: Art 123. A continuation of course Art 123, with opportunities for centrifugal casting, champlevé, cloisonné, and pique-a-jour methods of jewelry construction. 0-6

BIOLOGY

111 General Biology

4 hrs. credit

Prerequisite: none. Lectures, discussions, field and laboratory investigations in the significant areas of science, botany, zoology, and physiology. Intended for students in liberal arts, education, and biological science fields. 2-6

112 General Biology II

4 hrs. credit

Prerequisites: Biology 111, or permission of the instructor. A continuation of Biology 111. Emphasis upon human biology, independent investigations, and applications to human affairs. 2-6

113 Health and Hygiene

3 hrs. credit

Prerequisites: none. Designed to create appreciation for the significance of health education for college students; to develop a better understanding of health; and to encourage more effective living in personal and community relationships. 3-0

121 General Zoology 4 hrs. credit

Prerequisite: none. Designed for students planning to concentrate in science. Deals with classification, structure, function, environmental relations, origin, and development of animals. Illustrations and application of the scientific method. 2-6

131 General Botany 4 hrs. credit

Prerequisite: Biology 121. A continuation of Biology 121, study of morphology, activities, evolutionary relationships, and economic importance of major plant groups. 2-6

141 General Physiology 4 hrs. credit

Prerequisites: none. A study of the body and its structures, and a knowledge of the correlation of the various systems in the body. 3-2

211 Microbiology 4 hrs. credit

Prerequisites: Biol. 111, 112, or 121 and Chem. 111. Deals with the fundamental principles and laws of bacteriology and their applications. Special attention will be given to the study of representative bacteria, molds and other allied micro-organisms. 2-6

221 Comparative Vertebrate Anatomy 4 hrs. credit

Prerequisite: Biology 111 completed with minimum grade of C. Evolution of the larger taxonomic groups of chordates and a comparative study of their gross morphology. Special emphasis on dissection of various chordates and their relationship. 2-6



## BUSINESS

- |     |                              |               |
|-----|------------------------------|---------------|
| 105 | <u>Beginning Typewriting</u> | 2 hrs. credit |
|-----|------------------------------|---------------|

Prerequisites: none. A mastery of the keyboard and practice in the basic skills and techniques of the touch system of typewriting, for personal and vocational use. 2-2

- |     |                                 |               |
|-----|---------------------------------|---------------|
| 106 | <u>Intermediate Typewriting</u> | 2 hrs. credit |
|-----|---------------------------------|---------------|

Prerequisites: Bus. 105 or its equivalent. Vocational training for business. Special drills for perfecting the techniques necessary for accuracy and speed in typewriting, particularly in business letters, tabulations, reports, and other forms used in business offices. Training in the use of transcribing machines and duplication processes. 2-2

- |     |                             |               |
|-----|-----------------------------|---------------|
| 107 | <u>Advanced Typewriting</u> | 2 hrs. credit |
|-----|-----------------------------|---------------|

Prerequisites: Bus. 106 or its equivalent. The planning of typical business projects, at a rate equivalent to that expected in an office. Advanced drill and copy work to develop speed and accuracy. Additional training in the use of transcribing machines. 2-2

- |     |                            |               |
|-----|----------------------------|---------------|
| 110 | <u>Beginning Shorthand</u> | 4 hrs. credit |
|-----|----------------------------|---------------|

Prerequisites: none. Basic principles of Gregg Shorthand Simplified, including a study of brief forms and elementary vocabulary; development of skill in reading, and fluency in writing; dictation of practiced and new materials; pre-transcription training. 4-1

- |     |                               |               |
|-----|-------------------------------|---------------|
| 111 | <u>Intermediate Shorthand</u> | 4 hrs. credit |
|-----|-------------------------------|---------------|

Prerequisites: Bus 105 and 110 or their equivalent. Must be accompanied by Bus. 106 or 107. Acquisition of speed in taking new-matter dictation; development of speed and accuracy in transcription skills; includes English grammar review, vocabulary study, spelling. 4-1

112 Dictation and Transcription

4 hrs. credit

Prerequisites: Bus. 111. Emphasis placed on the development of skills in handling more difficult vocabulary; increase in shorthand dictation speed through a process of automatization and good work habits; increase in speed and accuracy of transcription, and the development of special techniques in handling office dictation. Emphasis on transcribing mailable letters through improvement of shorthand, typewriting, and English. 4-0

113 Speed Building and Specialized Shorthand

3 hrs. credit

Prerequisites: Bus. 112 or consent of department chairman. To develop high speed in taking and transcribing dictation; special vocabularies for conference and court reporting, medical secretaries, legal secretaries, chemical secretaries, according to the career interest of the student. 3-0

117 Transportation and Traffic Management, I

3 hrs. credit

Prerequisites: None. Designed to provide the information, practice, and techniques necessary to qualify for position in the Traffic Management Divisions of larger industry and carrier companies. Covers the history of American Transportation Systems, developments leading to Federal regulation of carriers other than railroad, classification of freight, principles of freight rates and tariffs, shipping documents and their application in freight claims. 3-0

118 Transportation and Traffic Management, II

3 hrs. credit

Prerequisites: Bus. 117. A continuation of Tran. and Tr. Mgmt. 117. Deals with tariff circulars, construction and filing of tariffs, freight rates and tariffs, terminal facilities and switching, demurrage, transit privileges, warehousing and distribution, materials handling and packaging. See Bus. 217 and 218 for advanced courses. 3-0

120 Machine Calculation 2 hrs. credit

Prerequisites: Students weak in arithmetic should take Math. 105 before electing this course. A laboratory course dealing with the basic operations of such calculating machines as Monroe, Marchant, Comptometer, Burroughs, and the full keyboard and tenkey adding machines. 2-3

121 Machine Calculation 2 hrs. credit

Prerequisites: Business 120. A continuation of Business 120, with emphasis placed on vocational efficiency and speed of manipulation on the key-driven calculator. Five hours weekly. Business 120, 121, 122 may be taken separately or concurrently. 2-3

122 Machine Calculation 2 hrs. credit

Prerequisites: Business 121. Advanced study in machine calculation. Designed particularly for specialization. Five hours weekly. Business 120, 121, 122 may be taken separately or concurrently. 2-3

135 Filing 1 hr. credit

Prerequisites: None. Presents basic filing rules and provides practical application on exercises involving the alphabetic and numeric systems of filing. One or more units (Business 135, 136, 137) may be taken in one semester. 1-0

136 Filing and Records Management 1 hr. credit

Prerequisites: Business 135. A continuation of the study of filing systems to include geographic, subject, and subject-decimal filing. Emphasis placed on the study of filing as a basic tool of management. Consideration is given to equipment and supplies, use and control of records, transfer and disposal of records. One or more units (Business 135, 136, 137) may be taken in one semester. 1-0



137 Advanced Filing and Records Management 1 hr. credit

Prerequisites: Bus. 136. A continuation of the study of records managements and specific filing problems, with outside readings, field trips, oral and written reports. One or more units ( Bus. 135, 136, 137) May be taken in one semester. 1-0

140 Introduction to Data Processing Machines 3 hrs. credit

Prerequisites: none. Provides student with a working knowledge of the scope of data processing machines as applied to business functions. No wiring or operation is included in this basic course. 3-0

141 Data Process Machine Operation 5 hrs. credit

Prerequisites: Bus. 140. Discussion of machines, card designs, wiring, followed by actual operation of machine involved. Machines such as the sorter, collator, reproducer, basic printing, and basic accounting machines will be included. 2-6

145 Cooperative Office Education 3 hrs. credit

Prerequisites: Employable skill and consent of coordinator. Students placed in various school or business offices where they gain on-the-job experience. The work is supervised by the coordinator. In addition, the class meets one hour each week at which time problems arising, or anticipated, on the job are discussed. 1-15

146 Cooperative Office Education 3 hrs. credit

Prerequisites: Bus. 145. A continuation of Bus. 145. 1-15

148 Cooperative Retail Education 3 hrs. credit

Prerequisites: Employable skills and consent of coordinator. Students work in community retail stores. Their work is supervised by a coordinator. In addition, class meets one hour each week at which time problems arising, or anticipated, on the job are discussed. 1-15

149 Cooperative Retail Education 3 hrs. credit

Prerequisites: Bus. 148. A continuation of Bus. 148. 1-15

150 Orientation to Medical Office Work ½ hr. credit

Prerequisites: None. Intruduction to the medical secretarial opportunities and responsibilities. A joint effort of the Medical Assistants and the College to acquaint students with the work of the medical secretary. 1-0

151 Orientation to Public Health Vocations ½ hr. credit

Prerequisites: None. Introduction to the public agencies closely connected with the work of the medical secretary -- Civic Nursing Service, Michigan Crippled Children's Commission, County Social Welfare Department, Bureau of Social Aid, County and City Laboratory. 1-0

160 Business Organization 3 hrs. credit

Prerequisites: None. Acquaints student with principles, problems and practices of business and industry. Consideration given to the areas of organization, management, labor, production, markets, finance, and insurance. Designed also to help business students select a field of specialization. 3-0

175 Advertising 3 hrs. credit

Prerequisites: None. A study of the basic elements of advertising. Special emphasis placed on the investigation of economic and social aspects of advertising, media selection, and package design. Trade names, marks, and slogans discussed. 3-0

180 Salesmanship 3 hrs. credit

Prerequisites: None. Deals with the fundamentals of selling. Includes analyzing the product; evaluation of customer's needs, desires, and buying motives; the application of sales procedures. Provides training in sales techniques and in the development of a sales personality. 3-0

217 Transportation and Traffic Management, III 3 hrs. credit

Prerequisites: At least one semester of Transportation and Traffic Management or its equivalent. A continuation of Tran. and Tr. Mgnt. 117-118, including through routes and rates, milling in transit, technical tariff and rate interpretation, overcharges and undercharges, losses and damages, and a review of decisions of the Inter-State Commerce Commission. 3-0

218 Transportation and Traffic Management 3 hrs. credit

Prerequisites: Business 217. A continuation of Tran. and Tr. Mgnt. 217, including evolution of the Interstate Commerce Act, construction of the Interstate Commerce Act, its interpretation and application, procedures and practice before the Interstate Commerce Commission, statutory authority for awarding damages, and a review of decisions of the Inter-State Commerce Commission. 3-0

230 Nursing Arts 3 hrs. credit

Prerequisites: Business 150 and Business 151, at least one semester of Biology, or consent of Chairman of Business Department. Designed to provide knowledge of Nursing Arts that will enable the secretary to work cooperatively and efficiently with doctor, members of staff, patients; to train the student in the simpler techniques of nursing so that she may assist the doctor when it is not possible for a nurse to be in attendance; to provide the secretary with an appreciation of medical care, so that she may interpret, accurately to the public, the health processes in her community. 2-2



231 Orientation to the Medical Laboratory 3 hrs. credit

Prerequisites: Business 230, or consent of the Chairman of the Business Department. Lectures, demonstrations, and laboratory experience to familiarize the student with laboratory procedures commonly used in the medical office. Special emphasis on terminology used in reporting findings; mixing and standardizing common solutions and reagents. An acquaintance-ship with microbiology and bacteriology; qualitative urinalysis, hematology, microscopical examination of smears and sediments, BMR and EKG determinants.

2-2

240 Business Practices 3 hrs. credit

Prerequisites: Bus. 106, or the equivalent, and English 121. Business Practices is recommended for all business students. It coordinates the specialized skills and knowledge acquired in the accounting, general business, management, clerical, advertising, retailing, and transportation curricula. The importance of the office in today's economy and the specific office service units are studied from the managerial and office employee's point of view. Stress is placed upon the human relations element as it is applied to efficient, harmonious office procedures in the modern business office. Office practices integrated primarily through the completion of projects and through the Case Study approach. 3-0

245 Cooperative Office Education 3 hrs. credit

Prerequisites: Bus. 146. A continuation of Bus. 146. 1-15

246 Cooperative Office Education 3 hrs. credit

Prerequisites: Bus. 245. A continuation of Bus. 245, 1-15

248 Cooperative Retail Education 3 hrs. credit

Prerequisites: Bus. 149. A continuation of Bus. 149. 1-15

249 Cooperative Retail Education 3 hrs. credit

Prerequisites: Bus. 248. A continuation of Bus. 248. 1-15

250 Business Law 3 hrs. credit

Prerequisites: None. A study of contracts, negotiable instruments, employment, bailments, agency, and personal property. 3-0

251 Business Law 3 hrs. credit

Prerequisites: None. A study of sales, insurance, real property, trusts, partnerships, and corporations. 3-0

265 Credit and Collections 3 hrs. credit

Prerequisites: None. A practical and detailed study of the meaning and importance of credit. Among the areas covered are: the extent of retail credit; source of credit information; legal aspects, policies and procedures; and collection problems. Retail and mercantile credit, and collections, is approached primarily from the viewpoint of the management of credit operation. 3-0

270 Marketing 3 hrs. credit

Prerequisites: None. An introduction to the functional aspects of marketing; its institutions; price determination, merchandising, and distribution of products. 3-0

280 Buying and Store Management 3 hrs. credit

Prerequisite: Accounting 253. Designed to train students in the analysis of management problems and the synthesis of solutions. The theories of management practices are discussed and the fundamentals of administrative, executive, and staff management are explained. Emphasis is placed on the preparation of essential information required by management for decision making. 3-0

285 Problems of Retail Merchandising 3 hrs. credit

Prerequisites: Business 180 and Business 270. A study of retail selling and the aspects of increasing sales through promotion and advertising. Buying, merchandise planning, marking merchandise, pricing for profit, and store accounting are discussed. 3-0

CHEMISTRY

111 General and Inorganic Chemistry 4 hrs. credit

Prerequisite: High school chemistry and one year of high school algebra with satisfactory placement test scores. For students in chemical engineering, agriculture, nursing, pre-dentistry, pre-medicine, medical technology, pre-veterinary, pre-forestry, home economics, and related curricula of chemistry. Includes laws of chemical combination, states of matter, atomic and molecular structure, physical and chemical properties of matter. Lecture, quiz, and laboratory. 2-3

112 General and Inorganic Chemistry 4 hrs. credit

Prerequisites: Chem. 111. A continuation of Chem. 111. Descriptive study of metals and non-metals; further study of principles. Recommended for students desiring advanced study in chemistry. Lecture, quiz, and laboratory. 2-3

115 Engineering Problems 1 hr. credit

Prerequisites: Chemistry 111 with C or better, and 1½ years of high school algebra. Intended to familiarize the student with problems in equilibrium, titration, electrochemistry and redox reactions. Required for engineers not taking Chemistry 112 or 122. 2-0



122 Inorganic Chemistry and Qualitative Analysis 5 hrs. credit

Prerequisite: Chem. 111 and consent of Chairman of Chemistry Department. A continuation of general chemistry with emphasis on semi-micro qualitative analysis for laboratory work. 4-6

205 Organic Chemistry 4 hrs. credit

Prerequisites: Chem. 112 or 115. A first course in the basic principles of organic chemistry, dealing with the carbon compounds of both the aliphatic and aromatic series. Major emphasis on the aliphatic series. Fills the requirements for medicine, dentistry, pharmacy, agriculture, home economics, and other related curricula. 4-0

207 Organic Chemistry Laboratory 2 hrs. credit

Prerequisite: Chem. 222. Preparation of a number of typical organic compounds and determination of their physical constants. 0-8

211 Organic Chemistry 4 hrs. credit

Prerequisites: Chemistry 112 or 122 with C or better. First semester of a 2-semester course emphasizing mechanism and principles of organic reactions, both aliphatic and aromatic. Recommended for chemists, chemical engineers, pharmacists. 3-3

212 Organic Chemistry 4 hrs. credit

Prerequisites: Chemistry 211 with C or better. Continuation of Chemistry 211. Laboratory includes some qualitative organic analysis. 3-3

221 Qualitative Analysis 4 hrs. credit

Prerequisite: Chemistry 112. Explanation of laboratory procedure in terms of the principles of general chemistry. Semi-micro laboratory procedure involves identification of common metals through appropriate unknowns; also the identification of common acid groups. 2-4

222 Quantitative Chemistry 4 hrs. credit

Prerequisite: Chem. 122 or 221. Knowledge of common logarithms essential. Theory and practice of volumetric and gravimetric analysis. Major emphasis on volumetric analysis. 3-2

223 Quantitative Chemistry 3 hrs. credit

Prerequisite: Chem. 122 or 221. Similar to Chem. 222 but adapted to the needs of medical technology students. Not accepted for chemistry or pre-medicine majors. 3-2

DRAWING

105 Industrial Drafting 3 hrs. credit

Prerequisites: none. Elements of orthographic projection in the mechanical, structural, and electrical fields. Lettering, use of instruments, sketching, dimensioning, and details. Field trips. 0-6

106 Industrial Drafting 3 hrs. credit

Prerequisite: Drawing 105. Continuation of Drawing 105. Sections, Auxiliary projection, pictorial drawing, descriptive geometry, layout and development. Field trips. 0-6

125 Lettering 2 hrs. credit

Prerequisites: none. History, styles, and methods of lettering. Basic forms, media and tools, techniques, and designs. 0-4

155 Orthographic Projection 3 hrs. credit

Prerequisites: none. Use of instruments, lettering, principles of orthographic projection, auxiliary views, sections, dimensioning, pictorial drawing, white printing. 0-6

156 Descriptive Geometry 3 hrs. credit

Prerequisite: Drawing 155, Solid Geometry. Emphasis on space visualization and processes of solution. Problems comprise combinations of points, lines, planes, intersections, developments, warped surfaces, true angles, true size and shape, vectors, shades and shadows, and conics. 0-6

205 Advanced Industrial Drafting 3 hrs. credit

Prerequisite: Drawing 106. Problems with original thinking and planning taken directly from local industry. Field trips. 0-6

206 Advanced Industrial Drafting 3 hrs. credit

Prerequisite: Drawing 205. A continuation of Drawing 205. 0-6

SURVEYING

205 Elements of Surveying 4 hrs. credit

Prerequisite: Math 101 or equivalent. Elements of surveying; use of equipment, measurement of distances, angles, and evaluation; analysis and use of verniers; a study of the public land system; traverses and topographic surveys and mapping. 2-4

ECONOMICS

111 Essentials of Economics 3 hrs. credit

Prerequisite: None. A study of the American Economic system with special attention to the problems of individuals as consumers and producers. 3-0



112 Essentials of Economics II

3 hrs. credit

Prerequisite: Economics 111. A continuation of Economics 111. Gives a further analysis of the workings of the American Economic system. 3-0

203 Industrial Relations

3 hrs. credit

Prerequisite: Economics 111 or 211. A study of the human factor in industry. Problems of wages, hours, unemployment, working conditions; Federal and state laws which relate to labor, management relations; policies and practices of unions. 3-0

211 Principles of Economics

4 hrs. credit

Open only to sophomores. A basic course in beginning economics: relation of production and income; forms of business organization; money and banking system of the United States; value of money; employment; business cycles and economic instability. 4-0

212 Principles of Economics II

4 hrs. credit

Prerequisite: Econ. 211. A continuation of Econ. 211. The forces which determine prices under competition and under varying degrees of monopoly; function of prices and costs in allocating production factors; distribution of income; public finance; alternative economic systems. 4-0

ENGLISH

111 Freshman English

3 hrs. credit

Prerequisites: none. The purpose of this course is to develop competence in reading and writing through the reading and discussion of literary works in various forms and the writing of papers based on the readings. 3-0

112 Freshman English 3 hrs. credit

Prerequisite: English 111. A continuation of English 111. Special attention is given to the preparation of the research paper. 3-0

121 Business Communication 3 hrs. credit

Prerequisite: None This course gives instruction and practice in writing of business letters, particularly letters of application, inquiry and reply, claims, and adjustments. A review of usage from the point of view of business and a short market research report are included. All assignments must be typewritten. 3-0

122 Business Communication II 3 hrs. credit

Prerequisite: English 121. A continuation of English 121. This course emphasizes sales, collection, and adjustment series and substantial sales and market reports. 3-0

211 Advanced Composition 3 hrs. credit

Prerequisite: English 112. After instruction and practice in various forms, the student is encouraged to pursue his own interests in composition under individual guidance. 3-0

221 Introduction to Literature 3 hrs. credit

This course is designed to increase the students' ability to read literature with understanding and enjoyment, with attention mainly to selected novels and poetry of various types and periods. 3-0

231 Introduction to Drama 4 hrs. credit

This course is concerned with understanding and appreciation of drama. Half the semester given to the close reading of five or six of Shakespeare's plays and half to selected plays of the nineteenth and twentieth centuries.

3-0

241 American Literature

3 hrs. credit

Prerequisite: English 112. The purpose of this course is to acquaint the student with the literary heritage of the United States through a study of the major writers. It is recommended that this course be preceded by English 221 or 231. 3-0

250 Children's Literature

3 hrs. credit

Prerequisite: English 112. This course surveys literature of children of all ages and develops criteria for selecting books for children. 3-0

GEOGRAPHY

111 Physical Geography

4 hrs. credit

Prerequisite: none. An introduction to maps and the physical features of the world: Earth-Sun-Moon relationships; Earth materials; landforms; drainage; climate; natural vegetation and soil; the natural environment which is important to man and his activities. 4-0

112 World Regional Geography

4 hrs. credit

Survey of world geographic regions. 4-0

205 Economic Geography

4 hrs. credit

Prerequisite: Geog. 111 or 112. Open to freshmen with permission of instructor. Fundamentals of economic geography of the major world regions, dealing with leading economic activities such as agriculture, forestry, fishing, mining, manufacturing, transportation, and trade. 4-0



GEOLOGY

111 Physical Geology 4 hrs. credit

The earth's features, treated with special reference to their origin and significance; agencies effecting changes in geographic features; physiographic changes in progress; effect of man's physical environment upon his distribution, habits, and occupations. Introductory study of common rocks and rock-forming minerals and interpretation of topographic maps. 3-1

112 Historical Geology 4 hrs. credit

Prerequisite: Geol. 111. Fundamental problems involved in dynamical, structural, and historical geology. History of the earth studied from its origin to the present. The successive stages are followed in development of North America as a typical continent; formation of mountains, plains, and evolution of life of land and seas. Includes identification of fossils and interpretation of geologic maps. 3-1

HISTORY

111 A Survey of Early Western Civilization 4 hrs. credit

Prerequisite: none. Political, social, economic, and cultural history of Europe from prehistoric times to the seventeenth century. Particular attention given to causes of the rise and fall of civilizations and their contributions to the modern world. 4-0

112 A Survey of Later Western Civilization 4 hrs. credit

Prerequisite: none. Political, social, economic, and cultural history of Europe from the Wars of Religion to the present time. Particular attention given to colonial, national and democratic movements and their influence on current events. 4-0

113 History of Michigan 2 hrs. credit

Prerequisite: none. History of Michigan from the time of first known human inhabitants through French and British domination, and finally American acquisition of Michigan leading to territorial status and statehood. Emphasis on Michigan history as a representative part of human culture. 2-0

211 History of the United States to 1865 3 hrs. credit

Prerequisite: none. History of the United States from its immediate European backgrounds to the end of the Civil War. Some emphasis on social history and American international relations. 3-0

212 History of the United States from 1865 to the Present 3 hrs. credit

Prerequisite: History 211. A continuation of History 211. United States History from the end of the Civil War to the present time. Some emphasis on social history and American international relations. 3-0

217 Russia Since 1900 (Same as Political Science 217) 3 hrs. credit

Prerequisite: none. Institutional, social, and economic developments within the Soviet Union since 1900; rise and death of Stalin and developments since 1953. 3-0

MATHEMATICS.

101 Technical Mathematics I 4 hrs. credit

Prerequisite: Math 94 if mathematics placement score is unsatisfactory. Designed for the first semester in Technical Architecture and Technical Engineering curricula. Applications of arithmetic and plane and solid geometry, logarithms. 4-0

102 Technical Mathematics II 4 hrs. credit

Prerequisite: Math 101. Designed for the second semester in Technical Architecture and Technical Engineering curricula. Slide rule and applied problems, graphs, measuring instruments, practical algebra, geometric constructions, essentials of trigonometry, strength of materials, work and power, woodwork, tapers. 4-0

105 Business Computation 3 hrs. credit

Prerequisite: Math. 94 if mathematics placement test score is unsatisfactory. Combinations, special cases and short methods used in combinations; rapid calculation; various methods of proof in checking results; complex fractions and mixed numbers; decimals, percentage; interest; discount; logarithms, elements of statistics. 3-0

108 Business Statistics 3 hrs. credit

Prerequisite: Math. 94 or its equivalent. Elementary statistical concepts, frequency distribution, measures of central tendency, measures of variability, normal curve of distribution, sampling-error theory, time series, analysis of seasonal variation, and correlation theory. 3-0



110 Basic Mathematics

3 hrs. credit

Prerequisite: Math. 94 if mathematics placement score is unsatisfactory. Designed for elementary education candidates. Opportunity to remedy defects in the use of fundamental operations. Includes mathematics review and methods for elementary teaching. Topics studied are combinations, rapid calculation, mixed numbers, decimals, percentage, interest, discount, graphs, and statistics. Does not count toward mathematics major at senior college. 3-0

116 Slide Rule

1 hr. credit

Prerequisite: Math. 121 or its equivalent. Must precede or be taken concurrently. For engineering students or those majoring in physics or chemistry. Consult instructor before purchasing slide rule. 1-0

120 Solid Euclidean Geometry

2 hrs. credit

Prerequisites: Math. 93 and 94, or Math 94 may be taken concurrently or their high school equivalents must be on the student's record. Description: formulas, basic constructions and propositions, original exercises, mensuration. 2-0

121 Plane Trigonometry

3 hrs. credit

Prerequisites: Math 95 and 97 or their equivalents. (Math. 97 may be taken concurrently). Radian measure, coordinate systems, trigonometric ratios, identities, equations, inverse functions, graphs, logarithms, reduction and addition formulas, solutions of right and oblique triangles, including areas. 3-0

122 College Algebra

3 hrs. credit

Prerequisite: Math 121. Review of exponents, radicals, quadratic equations; variations; proportion; systems of equations; complex numbers, theory of equations; determinants; inequalities. 3-0

123 Plane and Solid Analytic Geometry 4 hrs. credit

Prerequisites: Math 98 and 122 or their equivalents. Cartesian coordinates, loci, symmetry, lines, conic sections, algebraic curves, transcendental curves, polar coordinates, space coordinates, planes, straight lines, quadric surfaces, space curves. 4-0

201 Technical Mathematics 4 hrs. credit

Prerequisite: Math 102. Designed for the third semester in Technical Architecture and Technical Engineering curricula. Speed ratios of pulleys and gear, screw threads, cutting speed and feed, gears, milling machine work, belting. 4-0

221 Calculus 5 hrs. credit

Prerequisite: Math. 123. Functions and limits; continuity; derivative; differentiation of algebraic, transcendental, and hyperbolic functions; maxima and minima; related rates; curve tracing; rectilinear and curvilinear motion; indefinite and definite integrals; areas; volumes; length of arc; work; liquid pressure; centroids; moments of inertia. 5-0

222 Calculus II 4 hrs. credit

Prerequisite: Math 221. Further methods of integration, improper integrals, indeterminate forms, Taylor's and Maclaurin's series, infinite series, partial derivatives, multiple integrals, introduction to differential equations. 5-0

MUSIC

111 Music Appreciation 3 hrs. credit

Prerequisite: none. Acquaints the student with the fundamentals of listening and with the musical classics. 3-0

121 Elements of Music 3 hrs. credit

Prerequisite: none. Planned to meet the needs of those who plan to teach in the elementary schools. Rudiments of music, including notation, clefs, keys, syllables. Teaching of rote songs. 3-0

PHILOSOPHY

211 Introduction to Philosophy 3 hrs. credit

Open to sophomores. Designed to acquaint the student with some of the fundamental questions that have confronted mankind and the way in which these questions have been dealt with by the most profound thinkers of the past and present. 3-0



221 Logic 4 hrs. credit

Sophomore standing or 2nd semester freshman C+ or better. Aims to develop effective thinking through the study of classical logic. Includes the methods of clear argumentation, definition, the assessment of evidence and a brief introduction to inductive logic and scientific method. 4-0

### PHYSICAL EDUCATION

#### MEN

101 Physical Fitness and Weight Lifting 1 hr. credit

Conditioning and body building stressed. 0-1

103-104 Swimming 1 hr. credit per sem.

203-204 Beginning, Intermediate, Advanced, Lifesaving. Students placed according to ability. 0-1

105 Team Sports 1 hr. credit

This course offers the student an opportunity to learn the rules and fundamentals of Softball, Touch Football, Basketball, and Volleyball. 0-1

106 Carry-Over Activities 1 hr. credit

Badminton and Table Tennis fundamentals taught. 0-1

107-108 Archery 1 hr. credit per sem.

207-208 Beginning, Intermediate, and Advanced. Students placed according to ability. 0-1

115 Beginning Basketball 1 hr. credit

Rules and basic fundamentals taught. 0-1

116 Advanced Basketball 1 hr. credit

Offensive and defensive fundamentals with officiating techniques. 0-1

PHYSICAL EDUCATION-WOMEN

101-102 Physical Education 1 hr. credit

A variety of activities, including team sports, basic rules and study of diets, exercises for physical fitness of individual figures. 0-1

111 Carry-Over Activities 1 hr. credit

The fundamentals of table tennis, archery, golf, tennis, badminton, and volleyball. 0-1

117 Modern Dance 1 hr. credit

Designed to teach fundamental movements of the body for meaningful expression as an art. 0-1

118 Modern Dance 1 hr. credit

Prerequisites: Modern Dance 117 (or permission of instructor). Study of dance movements for interpretation of art. Dance composition with purpose of creativity. 0-1

CO-EDUCATIONAL

119-120 Golf 1 hr. credit per sem.  
219

Beginning, Intermediate, and Advanced golf. Students placed according to ability. 0-1

155 Social Dancing 1 hr. credit

Basic ballroom dance steps taught. 0-1

161 Carry-Over Activities 1 hr. credit

A course offering the basic fundamentals and rules of badminton, volleyball, and table tennis. 0-1

PHYSICAL SCIENCE

101 Physical Science

4 hrs. credit

Prerequisite: none. For students interested in understanding the major concepts of geology, chemistry, astronomy, and physics. Is intended to give the student a better grasp of the scientific method, and to afford practice in critical thinking. 3-2

102 Physical Science

4 hrs. credit

Prerequisite: Physical Science 101. Continuation of Physical Science 101. 3-2

PHYSICS

111 General Physics

4 hrs. credit

Prerequisites: Elements of Science 93 or High School Physics, and High School Algebra I and II. A course designed to familiarize the student with basic physical principles. Deals with mechanics, heat, and sound. 4-3

112 General Physics II

4 hrs. credit

Prerequisite: Physics 111. A continuation of Physics 111. Covers electricity, light, and modern physics. 4-3

211 General Physics

5 hrs. credit

Prerequisites: High school physics or its equivalent; Math.

221. By permission, the latter may be taken as a parallel course. Covers the same general topics as Physics 111 but adapted to meet needs of engineering students. Many quantitative relationships more fully developed and applied to solution of additional problems. 5-3



212 General Physics

5 hrs. credit

Prerequisites: Physics 211. A continuation of Physics 211. Covers magnetism, electricity, and light. 5-3

POLITICAL SCIENCE

103 Introduction to American Government

3 hrs. credit

Prerequisite: none. (Not open to students with credit in Political Science 111). Organization and functions of the political, electoral, legislative, administrative, and judicial processes of the federal, and state, and local governments. 3-0

111 American Government

4 hrs. credit

Prerequisite: none. (Not open to students with credit in Political Science 103) Organization and functioning of the political, electoral, legislative, administrative, and judicial process of both federal and state governments. 4-0

112 State and Local Government

3 hrs. credit

Prerequisites: A course in Political Science or permission of the instructor. Development, structure, organization and problems of the state and local units of governments along with their relation to the federal government. 3-0

211 Comparative Government

4 hrs. credit

Prerequisite: A college course in political science or history. Deals principally with governments of Great Britain, France, Soviet Russia, and Spain, with some reference to governments of Sweden and South American countries. Emphasis on theories of democracy, fascism, communism, and socialism. 4-0

213 International Relations

3 hrs. credit

Prerequisite: A college course in political science or history.

Introduction to the study of politics among nations, designed to provide a working knowledge of concepts necessary to understanding current world affairs such as the state system, colonialism, imperialism, and regional arrangements. Includes a survey of international organizations. 3-0

215 American Political Parties

2 hrs. credit

Prerequisite: A college course in political science or United States history. History, organization, structure, and functions of political parties of the United States; use of public opinion by political parties; election results, pressure groups, and pressure politics; governmental regulation of political parties and conduct of elections. 2-0

217 Russia Since 1900 (same as History 217)

3 hrs. credit

Prerequisite: none. Institutional social and economic developments within the Soviet Union since 1900; rise and death of Stalin and developments since 1953. 3-0

PSYCHOLOGY

211 General Psychology

4 hrs. credit

Prerequisites: Must be a sophomore or be a freshman with one semester of C+ or better average. Principles underlying experience and behavior, designed to give an understanding of human behavior as affected by learning, motivation, emotion, intelligence, perception, personality, and interpersonal relationships. 4-0

216 Advanced General Psychology

3 hrs. credit

Prerequisite: Psychology 211. Designed for students who will major in psychology and those who wish to explore more fully the fundamental principles of psychological science. 3-0

222 Child Psychology

3 hrs. credit

Prerequisite: Psychology 211. Facts and generalizations concerning growth of children from conception to adolescence; deals with physical, mental, social and emotional development. 3-0

231 Psychology of Adjustment

3 hrs. credit

Prerequisite: Psychology 211. Application of psychological principles to interpersonal behavior; study of factors in the development of constructive personal adjustment as influenced by human relations in home, school, and community. 3-0

SOCIAL SCIENCE

111 Basic Social Science

4 hrs. credit

Prerequisite: none. An introduction to the study of man as a social individual, this course uses materials developed by the sociologist, anthropologist, economist, social psychologist and historian to give the student a broad social perspective of the society in which he will function.

4-0



SOCIOLOGY

211 Principles of Sociology 3 hrs. credit

Introduction to scientific study of human relationship and institutions. Includes evaluation of current literature as a reflection of man's culture. Basic for all courses in social work. 3-0

212 Social Problems 3 hrs. credit

Prerequisites: Social. 211 or Psych. 211. The causes and solutions of social problems in a dynamic society. 3-0

SPEECH

101 Fundamentals of Speech for Engineering Students 3 hrs. credit

Prerequisite: none. For students in engineering and scientific fields. Practice in speaking and outlining stressed. Technical, expository speeches, illustrated with blueprints, charts, graphs, and scientific apparatus. Extemporaneous, manuscript, and report speeches. 3-0

102 Business and Professional Speech 2 hrs. credit

Prerequisite: none. This course covers basic speech techniques which an individual may apply in his daily encounters with other people. Emphasis on speaking situations most frequently met by business and professional people, including business interviews, conferences, discussions, and planning and conducting meetings. 2-0

111 Speech and Voice Improvement 3 hrs. credit

Prerequisite: none. A course designed to create awareness of what constitutes an effective voice; one which shows how voice is produced and controlled in order that common faults are overcome or avoided; and one which suggests how voice can be improved as an instrument of communication. 3-0

112 Principles of Public Speaking 3 hrs. credit

Prerequisite: none. A course in practical problems of public address for the beginning student. Speaking assignments include impromptu, extemporaneous, manuscript, and memorized methods of delivery. Outlining and organization of content stressed. 3-0

201 Speech for the Classroom Teacher 3 hrs. credit

Prerequisite: none. A course for education majors. It aims for an understanding of speech in the educational process, self-improvement of the teacher through classroom speech activities, and application of these principles to teacher-pupil relationships. Its comprehensive goal is to aid the teacher in his professional and personal relationships with his students, his colleagues, and his community. 3-0

211 Advanced Public Speaking (Speechmaking) 3 hrs. credit

Prerequisites: Speech 111 or 112. A survey of several forms of public address. Includes the theory of speech; frequent platform experiences. Attention given to radio and television speaking procedure. All speaking assignments outlined and personal and social communication stressed. 3-0

213 The Oral Interpretation of Literature 3 hrs. credit

Prerequisites: Speech 111 or 112. Phonetics and voice culture is studied to enable one to interpret literature and to project personality over stage, radio, and television. Introduction to elements of voice, especially the voice mechanism. A survey of semantics examines language. 3-0

214 Discussion in Human Affairs 2 hrs. credit

Prerequisite: A previous speech course. Designed to explain discussion as a means to better understanding and action in human affairs and to develop attitudes and skills which enable people to participate in discussion competently. A study of group leadership. 2-0

THE FOLLOWING COURSES  
ARE DESIGNED FOR ADULTS  
AND ARE USUALLY OFFERED IN THE EVENING COLLEGE

ART

91 Background of Present Day Art 2 hrs. service credit

Prerequisite: none. A survey of the major influence, events, artists and movements of art and how they are related to the philosophy of the present day field of art. (To be handled as a lecture seminar with group participation but not as laboratory experiences.) 2-0

240 Studio Problems 2 hrs. credit

Prerequisite: none. Individual instruction in both beginning and advanced painting. Still life, figure painting and landscape painting. Individual and group projects. 2-0

241 Studio Problems 2 hrs. credit

Prerequisite: none. A continuation of Art 240. 2-0



BUSINESS

91 Notehand 3 hrs. service credit

Prerequisite: none. A brief writing method, based on the alphabet of Gregg Shorthand, presenting notemaking principles designed to help the student read and listen more intelligently and to make notes from reading, from lectures, and while composing. 3-1

162 Organizing and Operating a Small Business 2 hrs. credit

Prerequisite: none. An attempt is made to cover most of the factors involved in the organizing and operating of a small business. The student is made aware of the various techniques and management aids available to a small business operator. 2-0

185 Investments, How to Invest 2 hrs. credit

Prerequisite: none. A course which covers the fundamentals of most types of investments, the various uses for each type. The problems of setting up a personal investment program are discussed. 2-0

261 Review for CPS Exam 3 hrs. credit

Prerequisite: none. General review of business law, accounting, economics, secretarial skills, secretarial procedures, and personal adjustment and human relations. Planning for taking the CPS Examination is also included. 3-0

262 Review for CPS Exam 3 hrs. credit

Prerequisite: none. Continuation of Business 261. Emphasis will be placed on those parts of the examination for which the individual students in the class have need. 3-0

DRAMA

101 Fundamentals of Acting 2 hrs. credit

Prerequisite: none. This course provides the opportunity to explore basic and experimental areas in the field of acting. It includes the following units: oral interpretation, voice and diction, motivation, stage movement, pantomime, creating mood, group participation in one act plays and general criticism. Through this kind of encouragement, a student should enjoy more self-confidence in developing a stronger personality along with learning technical aspects of good acting. 2-0

111 Appreciation of the Theater 1 hr. credit

Prerequisite: none. This course is designed for both the serious student of drama and the person with an avocational interest in the theater and acting. It covers the current different types of plays and acting, the roles of the director, the productional elements of a play, together with auditioning techniques, and consideration of the functions of the audience. Current best plays are used as vehicles for discussion. 1-0

ECONOMICS

204 Case Studies in Labor Relations 3 hrs. credit

Prerequisite: Economics 203. Application of principles of Industrial Relations to collective bargaining case studies. Experience is gained in techniques of grievance procedures and arbitration. 3-0

ENGLISH

90 Vocabulary and Spelling Review 1 hr. service credit

Prerequisite: none. Designed to improve the student's spelling and vocabulary. The rules of spelling will be discussed as well as teaching the student new ways to increase his word power and to add new words to his vocabulary. 1-0

151 Creative Writing 2 hrs. credit

Prerequisite: A manuscript of 2500 words. This is primarily a writers workshop conducted along lines similar to the Antioch Writers Conferences. Primary objectives are to obtain a working understanding of the basic principles of effective written communication together with practice and constructive criticism in the application of these principles in the writing of original materials. 2-0

GEOLOGY

172 Geology of the National Parks 2 hrs. credit

Prerequisite: none. Study of the National Parks and Monuments by geographic areas. Supplemented by color slides and movies. 2-0

MATHEMATICS

109 Probability and Statistics 3 hrs. credit

Prerequisite: 2 years of high school Math. Considers frequency distributions, mean and standard deviation, Chebychaff's theorem, sample spaces, probabilities and sets, empirical results, events, conditional probability, independence, binomial distribution, testing hypotheses and acceptance sampling. (NBC Continental Classroom on TV) 3-0



PERSONNEL

151 Personnel Principles and Manpower Management 3 hrs. credit

Prerequisite: none. Examine ways by which individual and group needs may be merged with the needs of business. Covers latest developments in industrial relations and manpower management; job analysis, organizational planning, staffing, interviewing, testing, induction, training in employment, labor relations, contract negotiations, compensation employee morale. 3-0

152 Industrial Psychology 3 hrs. credit

Prerequisite: none. Applying psychological principles to selection, placement, training, supervision, evaluation and motivation of personnel. Introduction to problems of human relations in industry. 3-0

PHILOSOPHY

151 Creative Thinking 2 hrs. credit

Prerequisite: none. Presents the latest information on the creative thought process and the type of environmental factors most conducive to creativity. This is integrated with a series of projects which help each student to exercise and mature his own creative capacities. 2-0

152 Ideas that have Challenged Minds 2 hrs. credit

Prerequisite: none. The complexity of contemporary thought: its disagreements, instability, indifference, and vagueness discourage attempts to bring into focus and scrutiny the formation and projection of idea systems which have seemingly altered man's destiny. This course aims at selecting a few thinkers who represent the challenge of their time, and how these are reflected in idea systems today. 2-0

RELIGION

101 Basic Christian Beliefs

2 hrs. credit

Prerequisite: none. A study of the basic Biblical doctrines of forgiveness, repentance, salvation, etc., from several theological angles. Lecture and discussion. 2-0





DIRECTORIES

1961 - 1962

BOARD OF TRUSTEES

Maurice E. Brown, Chairman . . . . .	Saginaw
Oscar M. Anderson, Secretary . . . . .	Bay City
Leonard Bergstein, Treasurer . . . . .	Midland
George E. Butterfield . . . . .	Bay City
Frederick J. Chapin (Term beginning 7/1/61) . . . . .	Bay City
W. R. Collings . . . . .	Midland
Donald C. Durman . . . . .	Saginaw
Harry Hawkins . . . . .	Saginaw
Russell J. Schafer (Term ending 6/30/61) . . . . .	Pinconning
Jane Sutton . . . . .	Midland

ADMINISTRATIVE AND OFFICE STAFF

Maryanne L. Achenbach . . . . .	Secretary to Business Manager
Virginia K. Balun . . . . .	Catalog Assistant in Library
Franklin G. Bouwsma, B.A. . . . .	Director of Broadcasting
Donald J. Carlyon, B. A. . . . .	Business Manager
Elizabeth Ann Corbishley, B.A., M.A. . . . .	Associate Dean of Students
Michael L. Crovella, B.A. Bus.Ad. . . . .	Accountant, IBM
Geraldine T. Dangel . . . . .	Bookkeeper
Luis E. Folgueras, R.N., B.S., M.A. . . . .	Director of School of Nursing
Kenneth Heafield, B.A., M.A. . . . .	Associate Dean of Students
Gladys A. Kearns . . . . .	Secretary to President



Libbie Kessler, A.A., B.A., M.S.L. . . . . First Assistant Librarian  
John R. Lingenfelter . . . . . Bookstore Manager  
Dean A. MacConnel . . . . . Assistant to the Business Manager  
Samuel D. Marble, B.A., M.A., Ph.D., LL.D. . . . . President  
Dorothy Miles . . . . . Secretary to Bookstore Manager  
Karen M. Newberry . . . . . Clerk Typist  
Evelyn M. Pfundt . . . . . Secretary to Dean of College of Letters  
Demarest L. Polacheck . . . . . Order Librarian  
Janet G. Polacheck, B.A., B.S. in L.S. . . . . Director of Libraries  
Willard L. Reading, B.S. in Civil Eng. . . . .  
. . . . . Administrator of Buildings and Property  
Hugo E. Siehr, B.S., M.E. . . . . Registrar  
Celia Anne Silva . . . . . Clerk Typist in Library  
Margaret R. Silva . . . . . Secretary to Director of School of Nursing  
Joseph M. Stokes, B.A., B.Litt. (Oxon.), M.A., . . . . .  
M.A. (Oxon.), Ph.D. . . . . Dean of College of Letters  
Robert M. Stuart, B.A., M.A. . . . . Director of Continuing Education  
Frank W. Walsh . . . . . Reference Assistant in Library  
Lois L. Waterman, B.A., M.A. . . . . Dean of Students  
Joanne Werner . . . . . Secretary to Registrar





FACULTY

Names are not listed since the Faculties are still in process of formation.







Bulletins/catalogs Preliminary Bulletin of Delta college for 1961-62